ESSAYS IN APPLIED ECONOMICS

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PREFACE

Most of the papers collected in this volume have appeared in the *Economic Journal*, the *Contemporary Review* or the *Quarterly Journal of Economics*. One was first printed in the *Nineteenth Century and After*, one in the *Eugenics Review*, and one in the *Manchester Guardian Reconstruction Supplement*. I have to thank the editors of these journals for permission to reprint them here. The paper on *Some Aspects of the Housing Problem*, which constituted the Warburton Lecture for 1914, was printed in *Lectures on Housing* by the Manchester University Press. Here, again, permission to reprint has been kindly granted to me. For the most part I have left the papers in their original form. Occasionally, however, I have made alterations, and, in particular, the paper on *The Exchange Value of Legal-tender Money* has been recast and considerably expanded. I have not included anything concerned with the financial or other problems arising out of the war, because what I have written on these matters is already embodied in my book *The Political Economy of War*, published by Messrs. Macmillan. Nor, apart from the papers on *The Foreign Exchanges* and *The Exchange Value of Legal-tender Money*, have I reprinted anything of a technical character. These two papers are included for the convenience of students. The others are addressed to persons who, without necessarily possessing a specialist training in economics, are interested in the application of economic principles to current social problems. The ground covered is sufficiently indicated in the Table of Contents. The three papers, not previously published, on *Employers and Economic Chivalry*, *Small Holdings*, and *The Concentration of Population*, were written in 1913.

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I

THE PRIVATE USE OF MONEY[1]

I

THOUGH economics is a positive science and not a body of precepts, economists, in their unofficial capacity as human beings, frequently discuss the duty of Governments. In this article I shall attempt something that they undertake less often, namely to discuss the duty of private persons—not, of course, their whole duty, but that part of it which has to do with the use they make of their money. Whatever form of ethical theory we may hold, we are all agreed that it is reasonable, in choosing a course of action, to take some account of its probable effects on ourselves and some of its probable effects on other people. We have no duty to hurt ourselves a great deal in order to benefit somebody else a very little; but we have a duty to hurt ourselves a very little if, by so doing, we can benefit somebody else a great deal. Nobody would say, for example, that it is my duty to eat no food at all in order that somebody else may be enabled to have eight, instead of seven, courses for dinner; but everybody would say that I ought to accept seven courses instead of eight if, thereby, I could save somebody else from dying of starvation. Probably in our secret thought agreement would go further than this, and we should recognize that our own interests have no right to rank, as guides to action, above the equivalent and equally certain interests of others. In practice we are, no doubt, content with an ideal

[1] From the *Contemporary Review*, April, 1922.

much lower than this, and feel virtuous if we accord to the interests of other people, not our friends, a half, or even a tenth, of the importance we accord to our own. So long, however, as we accord to them any importance at all, we are under obligation, in deciding how to use our money, to look without, as well as within, our narrow domestic boundaries. When we have got that money—and the question of how we do and should get it is not here in debate—there are three things we can do with it: give it away, spend it, or save it. Everybody has to decide both how much of his income to devote to each of these broadly distinguished uses, and also how exactly, among innumerable detailed alternatives, he shall distribute within each broad use the money he has decided to devote to it.

II

The ground on which the duty of giving rests was stated long ago in a memorable phrase: "Dost think thou committest no injustice by keeping to thyself alone what would be the means of life to many? It is the bread of the hungry thou keepest, it is the clothing of the naked thou lockest up." It is true, no doubt, that the things which money can buy are not the best things—kindness and youth under open skies, comradeship of true friends in pleasure or difficulty or danger, a word, a silence, a smile, love that moves the sun and the other stars. But, though the best things are not purchasable, they, as well as the more obvious lesser goods of comfort and decency, need some modicum of purchasable things as a foundation. In houses that are not overcrowded, in leisure from strain and overwork, on a basis of reasonable physical conditions, in freedom from cold and hunger, the flower of the good life grows more easily than it can in cramping penury. Money is only a servant, but it is a servant without whom little can be done. Rich men, therefore, owe a debt to poor men by reason simply of the fact that they are rich. In modern States the executive Government, acting through the tax-gatherer, compels them to discharge a part of this debt. But, for fear of checking industry and saving, Governments cannot safely compel them to do the whole of what they feel they ought to do. After the tax-gatherer has done his worst, a large duty of private giving to social ends still remains for rich men to fulfil.

How much of their income they should give away depends on their personal and family circumstances and on the degree of importance that they attach to other people's interests. On that matter they will seek guidance from their own conscience. When, however, that has been decided, it may be possible for the economist to render a useful service by suggesting broad principles in accordance with which the choice among different sorts of gifts may best be made.

The first principle is that giving should be *constructive.* It should not aim merely at relieving distress at the moment, but at so building up character and capacity that distress will not recur. This requires that the giver must take trouble with his gift, looking beyond the symptoms to the causes of the evil he seeks to cure. For example, a poor person may be unable to earn a good wage because he is suffering from some illness or disability that proper treatment would cure. Constructive help means, not giving him a succession of doles, but providing what is necessary for his restoration to health. Again, a man may be in difficulties because his sort of skill has been done away with by a machine, or because demand for his sort of skill has left the place where he is, or because, though there is demand for his services, he cannot start for lack of tools or special clothes. Constructive help will take the form of enabling him to begin afresh, of teaching him a new trade, of enabling him and his family to move to a new place, of providing him with tools, and so on. Yet again, constructive help will look especially towards the young, whose lives are still in the mould. It will seek occasion to give to the children of poor people opportunities for education and training more thorough than it would be possible for them to get if poverty forced them to become wage-earners at the earliest legal moment. It will see that these children of poor parents are not left without adequate good food in the early years when they are growing and building up their future strength. It will remember, too, that there are capacities for enjoyment, which are capable of being trained, as well as capacities for work. It will listen to the late Canon Barnett's words: "It is better to teach people to enjoy themselves than to provide amusements, better to teach them to play than to watch others playing, better to give them a new interest than an empty holiday."

The second principle—if, indeed, it is not a subdivision of the first—is that our giving should be so devised as to evoke in the recipient a spirit of co-operation rather than one of mere passive receptivity. This point is well brought out in a passage from Mr. Paterson's *Across the Bridges* :—

"At present the difficulty of school dinners centres round the position of the mother. Her apathy towards the education of her child, her severance from any sense of partnership with the school, make her sometimes ready to snatch advantages, but slow to bear her proper share. Her lack of responsibility arises, not from the fact that so much is done for her, but that so much is done without her. As long as the education of the boy is taken completely out of her hands, so long will she be apt to stand aloof, regard every committee as a natural enemy, and grasp at all that she can, by any manœuvre, hope to be given. The absence of home work, visiting, reports, and all natural ties between school and home are the real enemies of parental responsibility. No mother is harmed by kindness done to her child, so long as every such kindness exacts from her a higher standard and ensures her active co-operation with the school."[1]

The third and last principle concerns not so much the kind of thing that is given as the kind of relation in which the giver stands to the receiver of the gift. For this may be the vital fact in deciding whether a gift is to prove helpful or demoralizing. Gifts should be given as from friend to friend. As between real friends, on any joint enterprise, if one is physically stronger than the other, he will, as a matter of course, do the harder work. Similarly, if one has more money, he will, as a matter of course, provide more. That is the communism of friendship. "Let me also share in your prayer, Socrates, for friends have all things in common." It has been well said of money help that it is most helpful when the giving is so great a pleasure to the giver that it confers no obligation on the recipient. Of course, there are not likely to be many people to whom any of us stand in a relation so intimate that this sort of communism can emerge full-blown: "Let us have all things in common and you pay." But the spirit and intention of it can, in some measure, mould our conduct generally. In order to help people in the best and safest way we must become their friends, or, if we cannot ourselves do this, we must arrange that our money shall reach them through somebody who is their friend, whom they trust and from whom they can take help with-

[1] *loc. cit.* p. 110.

out feeling ashamed. When money, or, better still, personal service, is given in a spirit of sympathy and understanding, we need not greatly fear that our gift will fail of its aim. That is all I shall venture to say on the difficult problem of giving money away.

III

When we have settled how much of our income to give away, the question how much of the remainder we ought to save is really the question how much we ought to spend on capital goods, as against goods and services fitted for immediate consumption or some other form of direct use. Our choice in this matter affects other people, because, the more we save, the larger, in general, will be the mass of capital equipment in the form of railways, factories, industrial plant and so forth. Of course, some saved money is used to buy existing securities, and so does not directly lead to the creation of new capital. But generally the person from whom an existing security is bought will use the proceeds either himself, or through some other intermediary, in hiring labour and equipment to make new capital goods. This need not always happen. In war time, for example, much saving is devoted to setting men to work to destroy capital rather than to create it. But this does not affect the general principle. Broadly, after some allowance has been made for waste, people's savings, mediately or immediately, appear somewhere as new capital equipment. The more capital equipment there is, however, the larger the real income of the country will be, and also, as familiar economic analysis shows, the larger the absolute amount of real income accruing to workpeople, whose efforts capital equipment assists, will become. These indirect consequences are normally advantageous. It follows that, with a view to promoting them, people ought to devote a rather larger proportion of their incomes to saving, as against spending, than private prudential considerations taken by themselves would suggest.

When the total amount of people's savings is decided upon, there remains the question : "Into what uses shall the savings be turned ?" Of course, if a man saves and leaves his savings on deposit at his bank, he, in effect, hands over the decision about this to his banker. In like manner, if he buys in the market

securities that already exist, he hands it over to the person from whom the securities are bought, and to whom his payment is made. When, however, people put money directly into their own or other people's business, or when they take up new issues of shares or loans, they themselves choose the use to which their savings, or, more accurately, the productive power over which these savings give control, shall be put. Now, of competing sorts of investment all equally profitable to them, some will throw indirect costs, and others will confer indirect benefits, on other people. For example, investment in the liquor trade indirectly makes necessary larger expenditure on the police force. Investment in factories, so constructed that their operation involves the emission of large quantities of smoke, indirectly adds to the washing bill of people living near them. Investment in the purchase of concessions in undeveloped countries may lead indirectly, through the diplomatic friction associated with it, to an addition to the cost of national armaments. On the other hand, investment in coffee taverns or other institutions designed to serve as counter-attractions to ordinary public-houses may indirectly enable the police budget to be reduced; investment in smoke-consuming devices may enable washing bills to be reduced; and so on. Moreover, the indirect effects of various sorts of investment extend beyond the economic into the moral sphere; and moral effects, as well as economic effects, are relevant to the conduct of investors who are anxious to fulfil their duty to their fellows.

IV

After gifts and savings have been provided for, what is left of our income remains for spending. Even when the effects of our action on other people are disregarded, there is room for taking thought about this. We often fail to distribute our spending in the most effective way among different objects. We make mistakes about what purchases will give us satisfaction and about how much satisfaction they will give. Mistakes of this sort may, of course, also be made in our choice among the various sorts of investment that are open to saved money. But they are more common in the department of spending. For, whereas, in investing money, people are often advised by specialists and the unskilful among them are eliminated by bankruptcy, in spending money

they fend for themselves, and there is no machinery for removing the unfit in favour of the fit. As has been well said: "The trained intelligence and the conquering capacity of the highly efficient housewife cannot be applied to the congenial task of setting to rights the disordered households of her less efficient neighbours. The neighbours, and even the husbands of these neighbours, are apt to regard critical comments upon their slack methods as meddlesome interference. The masterful housewife cannot win away the husbands of slack managers as the masterful merchant can win away the customers of the less able."[1] Moreover, even though we make no mistakes from incompetence and so spend our money as to get the greatest amount of satisfaction that it is capable of yielding us, all is not necessarily well, even from our own point of view. For some sorts of satisfaction are really better for us—carry, as it were, a larger amount of good—in spite of the fact that we prefer, and choose to obtain, other sorts. There is, indeed, a certain ambiguity about this. Everybody will agree that it is better for a man both to prefer to spend and in fact to spend £100 on concerts than on orgies. But are we clear that it is better for him to spend the money on going to concerts, if he hates concerts and likes orgies? Is our judgment, in short, that certain *preferences* are better than others, or that certain *actions* are better than others, independently of the relation they bear to the preferences? There is, of course, an easy practical or pedagogic answer: "Go to the concerts, and you will get to prefer them." But this answer is not adequate. If I know that I shall not get to like them and that I shall always like the orgies, is it, still, better to choose the concerts? Perhaps the right answer is that, if I have no secret feeling that the orgies are wrong and the concerts right, it is better to choose the orgies; but that, if I have a secret feeling of that kind, it is not better. But this aspect of our duty to ourselves need not be pursued further. It is time to pass on to the way in which our choice of spending affects, and should, therefore, in part be guided by, the interests of other people.

There is here a preliminary confusion to be guarded against. This arises out of the use of the word "luxury." That word

[1] Mitchell, "The Backward Art of Spending Money," *American Economic Review*, No. 2, p. 274.

sometimes connotes a general excess of spending, and sometimes expenditure on particular kinds of things that we call luxury goods. At the back of the popular condemnation of large expenditure on luxury goods is a tacit contrasting of this expenditure with a possible giving away or saving of the money devoted to it. For our purpose, however, that is not relevant. We assume that a given amount of money is to be devoted to spending, and are concerned simply with the choice between different sorts of spending. The question is not: "Is it better that I should spend £5 on a bottle of champagne or give £5 away?"; but "Is it better that I should spend £5 on the champagne or on, say, £5 worth of bread?" Champagne is a luxury article and bread is not; but it would be a gross fallacy to infer that I should be more virtuous in buying a hundred loaves of bread, which I cannot possibly eat, than in buying the champagne. In short, when the amount of our spending has been decided upon, there is no presumption that so-called luxury goods are worse objects of expenditure, from a public point of view, than other sorts of goods. Indeed, since in buying them we compete with the rich rather than with the poor, and since, for a number of them, the price is made up partly of taxation, they are quite likely to be better objects of expenditure.

This reference to taxation leads up to another preliminary matter, which it is convenient to clear out of the way. If we have a choice between spending £1 on either of two things, the cost of one of which includes 5*s.* worth of national taxation, our decision to purchase this thing involves a contribution of 5*s.* from us to the State. This either enables the State to buy 5*s.* worth more things, or it enables other persons, through being relieved of that amount of taxation, to do this. It follows then that other people, whether in their collective capacity as the State or in their separate capacity as individuals, benefit when we choose taxable articles in preference to tax-free articles as the object of our personal expenditure. *Per contra*, they suffer when we elect to spend money on things that are subsidized out of the national Exchequer. From this point of view to economize in bread, particularly at times when bread is subsidized out of national funds, in order to buy more tea, is to render a public service. This class of consideration, however, is not really relevant to our problem, because to spend £1 on an article, one quarter of

whose price is really tax, instead of spending it on an untaxed article, is not to choose one way of spending so much money on oneself instead of another way, but to choose spending 5*s.* less money on oneself (and handing the 5*s.* to the State) instead of spending 5*s.* more on oneself. For this reason we need not further consider the choice between taxed and untaxed goods.

Apart from this, in our selection of objects on which to spend, it is our duty to take account of certain indirect consequences which our action produces upon other people. Some sorts of spending cause labour and equipment to be employed in ways that inflict an injury on members of the general public, for which they receive no compensation. If we spend money on building a house in a thickly populated part of a town, we take away other people's air space; if we spend it in making music in a boarding house of non-musicians, we disturb their peace of mind; if we spend it on breeding rabbits which escape into our neighbours' fields, we spoil their crops; if, finally, we spend it on buying goods which are produced under conditions such that, the larger the output, the greater is the price per unit, our action indirectly makes other purchasers of these goods pay more for them—a damage sometimes in part offset by a consequential gain to landlords. *Per contra* other sorts of spending indirectly confer a benefit on members of the general public, for which they pay no price. If we build a beautiful house, passers-by enjoy the sight of it. If we plant a forest on our (hypothetical) large estate, the rainfall of the neighbourhood may be improved; if we root out disease among our plants or destroy vermin on our land, the prospect of immunity for our neighbours' plants also is made better. Yet again, if we spend money on buying goods that are produced under conditions such that, the larger the output, the smaller is the price per unit, our action indirectly enables other purchasers of these goods to obtain them at a lower price. This must certainly happen if the goods affected are being produced under competitive conditions; but, we may add for completeness, it need not happen if they are being produced by a monopolist who is controlling prices with an exclusive view to his own interest.

So far I have been thinking of the effects of our spending upon other people in their capacity of consumers. There are also effects on other people as producers. Thus, according to the

things we buy, we impel workers into channels where work is monotonous and mechanical or where it is interesting and creative. By choosing well-designed furniture in preference to ill-designed, good music and good books in preference to bad, objects of art in preference to objects of vulgar ostentation, we do a little to raise the ethical value of some people's working lives. Again, by choosing, when we can, to make our purchases from shops or factories in which we know that good conditions prevail and fair wages are paid, we encourage a proper treatment of workpeople by their employers. Consumers' associations, with their system of White Lists, aim at exercising this kind of influence; but, of course, for many articles it is not possible for the consumers to know where or how the goods they buy have been made.

Yet again, other people as producers are affected, not only by the nature, but also by the time, of our purchases. If we order flannel trousers or ball dresses at the last moment, when everybody else is needing them also, and demand delivery in a hurry, we help to promote an alternation of rush and slackness in producing establishments, with resultant irregular employment. If, on the other hand, we look ahead a little and give our orders, whether for clothes or for anything else, at times when other orders are low, our action will do a little to make industry more stable and the average volume of unemployment and short time smaller. This is a benefit to others that can sometimes be won at small cost to ourselves.

In conclusion, it is interesting to observe that, if 1,000 people determine to modify their line of expenditure with a view to promoting public ends, the effect is sometimes more—it may also sometimes be less—than 1,000 times as large as it would have been if one person only had determined to act in this way. Thus, suppose it to be in the general interest that adults should cut down their consumption of milk in order to leave a sufficient supply for children. If all adults, numbering, say, a million, and accustomed to consume a pint each a day, give up milk, there are, until the supply is cut down, a million more pints available for children. But, if only half the adults give up milk, the fall in price, to which their withdrawal from the market leads, will induce the other adults to consume more than before. Consequently, there will not be available for children the whole of the 500,000 pints which

the public-spirited adults have refrained from buying. It can be proved, further, that the net reduction of adult consumption will constitute a larger fraction of the reduction effected by those people who abstain altogether, the more numerous they are relatively to the whole adult population. The proof, of course, only holds good when conditions of production are such that lower prices are associated with smaller output. Now, if 1,000 men, all similar to one another, abstain from consuming something, the sacrifice to them is presumably a thousand times as large as that involved in one man's abstaining. But it has just been shown that in some circumstances the effect on outsiders is more than 1,000 times as large. Hence, it *may* be in the general interest (inclusive of their own) that a large number of men should all modify their consumption in a particular way, though it would not be in the general interest that a small number acting by themselves should do this. There is here the kernel of an argument, more fundamental than those generally employed, in favour of compulsory general rationing, as against appeals for voluntary rationing, in times of severe shortage.

II

EMPLOYERS AND ECONOMIC CHIVALRY

In the last lecture that Dr. Marshall gave as professor of Politi Economy in Cambridge there was one phrase by which all th who heard it must have been much impressed. It was "The British Factory Acts are a standing disgrace to the country." At first sight one would naturally take that sentence to mean that the Acts were drawn up with gross incompetence, and that many regulations which ought to have been made were omitted. That was not the meaning. The disgrace, in Dr. Marshall's view, lay, not in the character of the Factory Acts, but in their existence. The source of it was the fact that some employers in England neglected their clear duty towards their workpeople to such a degree as to render these Acts necessary. The object of Dr. Marshall's phrase was not to condemn any existing law, but to hold up and to emphasize a binding obligation of personal honour, which some business men have so far failed to recognize. I propose here to say something about that obligation of honour, and, as a text, I will set out some words of the celebrated Dutch manufacturer and philanthropist, Van Marken.

> "It seems to me," he wrote, "the duty of an employer to aid his subordinates by every means at his command—his heart, his intellect, his money—to attain that highest stage which alone makes life worth living. My own conviction is that in doing so the employer will make no sacrifices. But, if he needs must make them, be it from the material or moral point of view, let him make them up to the limits of his capacity. It is his sacred duty."[1]

Now, upon anyone delivering a discourse on that text it is clearly incumbent, in the first place, to bring his conception of

[1] Quoted by Meakin, *Model Factories and Villages*, p. 27.

an employer's duty into line with his conception of duties in general. I do not mean that it is necessary to engage in a discussion of ultimate ethical questions or to go behind the ordinary ideas of ordinary men on these matters. Certainly I have no intention of embarking upon a survey of ethical philosophy. But it is intellectually partisan and practically futile for a person who is not an employer of labour to preach for those who are a standard much higher than he is accustomed to look for in other walks of life. Consequently, I think, we should distinguish, for employers, as we do in fact distinguish for ourselves, between acts which are wrong, in the sense that blame rightly attaches to neglect of them, and acts which are praiseworthy, but which it is not wrong in this sense to omit. In saying this, of course, I am shirking some difficult problems and am standing at the level of what Sidgwick calls the morality of common sense. Still, for the present practical purpose that rather superficial distinction between wrong acts and praiseworthy acts, the neglect of which is not wrong, is useful. Roughly, it may be illustrated in this way. It is a wrong act deliberately to sacrifice somebody else to ourselves; it is, within limits, a praiseworthy act deliberately to sacrifice ourselves to somebody else. If I am climbing a mountain in front of another party, it is a wrong act to proceed in such a way as to kick stones down upon them: it is a praiseworthy act—perhaps—to let them go in front and kick stones on me. Now that rough distinction is applicable to employers of labour. The men who work for them stand towards them in a very special relation of dependence: a large part of their lives is spent in buildings provided by them and in attendance upon machinery set up by them; indeed, probably more than half their waking time depends intimately upon conditions that are to a large extent under their employer's control. It is a wrong act, in these circumstances, for employers to subject their workpeople to conditions which are obviously injurious; it is a praiseworthy act on their part to devote much care, thought and money to the task of rendering these conditions positively and definitely beneficial. Dr. Marshall's sentence about the Factory Acts asserts, in effect, that many employers have not merely failed to attain to the praiseworthy, but have required pressure of law to restrain them from the wrong. Van Marken's sentence groups together avoidance

of the wrong and pursuit, within limits, of the praiseworthy, and speaks of them both as the employer's duty.

Now I do not want to discuss that part of his duty which consists of avoidance, in his relations to his workpeople, of obvious wrongs. I will suppose that Factory Law has, in general, done away with gross tyranny over children, grossly insanitary conditions of work, grossly unhealthy and dangerous material arrangements. I will suppose that an employer has interpreted the law in these matters liberally, that his works would be passed upon by the inspectors as attaining to the legal minimum standard with a substantial margin, and that he is paying without cavil and without evasion the full Union rate of wages. Many people hold that it is a praiseworthy act, and Van Marken roundly asserts that it is his duty to go much beyond this, and deliberately to spend his money and himself in the interests of his workpeople. It is about this higher duty of the good employer that I propose to speak.

It would be a waste of time to insist at length on the fact that voluntary effort and voluntary expenditure among the poor may, if wisely exercised, yield a very large social gain. We all know—to speak only of investment of money—that such investment in the health and strength and mental powers of poor people will often yield a much larger return to the nation, even in terms of material output, than the investment of an equal sum in building or repairing inanimate machines. We all know that such investment, when it is voluntary, is a much more economical thing than the investment of equal resources collected by taxation; because voluntary gifts do not, while involuntary taxes do, in general, have some indirect effect in checking work and saving on the part of those who are taxed, and thereby cutting off at the source a portion of the country's real income. All this is very plain. But the immediate point is, not whether voluntary expenditure by the rich in the interests of the poor is a good thing, nor yet whether it is a better thing than governmental expenditure for the same end out of resources raised by taxation, but rather whether there is anything special in the position of employers of labour which lays on them a more evident obligation than falls to the lot of other persons equally well to do. This is the question I wish to debate, and, because that is so, I shall say nothing

about one very important form which the benevolence of good employers has sometimes assumed, namely, the provision of institutions of general utility, such as libraries, swimming-baths, parks, recreation grounds, museums, model dwellings and so forth. In omitting reference to these things, I am far, indeed, from suggesting that they are unimportant; but they are things the provision of which cannot, as a rule, be made more satisfactorily in connection with the workpeople of a particular firm than in connection with the general body of the inhabitants of a town or village.[1] Consequently, they are not things which employers of labour, as distinguished from other well-to-do persons, are under special obligation to provide. There are, however, other things in regard to which their obligation *is* a special one.

The first and most obvious reason for this is that employers, just because of the peculiar relation in which they stand to their workpeople, are often in a position to spend effort and money in their interest much more effectively and with much more prospect of a good result than other people are. To begin with, as I have already observed, a very large part of workpeople's lives is of necessity spent in buildings provided by, and in conditions largely under the control of, their employers. Arrangements made in their interest outside the factory by the benevolence of members of the general public may, for one reason or another, fail to reach them; they may intentionally avoid, or unintentionally miss, the proffered benefit. But to the building in which, and the conditions under which, they work, so long as they remain in a firm's employment, they are definitely tied down. Is it not plain, therefore, that in thought and money

[1] There are, indeed, sometimes forcible arguments *against* the provision of institutes of these sorts reserved to the employees of a particular factory. Mr. Cadbury writes that, in certain lines, "because the facilities necessary for the conduct of the institutions are secured in a more efficient and economical way at the Works, and the people employed there form so considerable a part of the population of the district, it is difficult from the ranks of those employed elsewhere to get sufficient members to keep outside institutions going; for example, attempts have been made in Bournville village and district to run a photographic society, but after a while it had to be given up for want of sufficient members, there being a flourishing society within the Works. The same thing has been realized in the efforts to institute gymnasiums for the young people in the district, such a large proportion of the younger people being absorbed in the Works gymnasium that there were not sufficient enthusiasts outside to keep such a club going. It is, however, always an open question as to how far, supposing Bournville Works with its social institutions were not there at all, the outside institutions would have been any more successful" (p. 260–1).

expended in bettering these conditions there is a splendid opportunity for reacting beneficially on their character and their lives? This point is well illustrated in the following sentence taken from Mr. Rowntree's pamphlet on *Industrial Betterment*:

> "It is, perhaps, hardly realized," he writes, "how important a social factor is the setting a right 'tone' in factory or shop. We hear much of the difficulty of getting the working classes to attend places of worship for even one hour in a week—but they spend, say, fifty hours every week under the constant and powerful influence of their working surroundings.'[1]

In arranging factory conditions with an eye to the workpeople's well-being, in choosing overseers and foremen for their qualities as men and women, whose personal influence *must* count, as well as for their mere organizing ability, the employer has it in his power at a small cost to effect much that nobody else can possibly effect even at a very large cost. The first reason then why a peculiar obligation rests upon employers of labour is that they possess, from their position, peculiar opportunities.

I pass to the second reason. In discussions concerning the equity of special rates upon site-values in urban districts, it is frequently urged, and I believe with justice, that, within limits, money may fairly be raised in this way, because a large part of the public expenditure of most towns reacts indirectly in increasing the value of sites to their owners. In other words, site-owners may reasonably be subjected to special local rates, because, when the money collected from them comes to be expended, they are often specially benefited. An argument analogous to this holds good of employers of labour. Investments undertaken by them for the betterment of their workpeople's lives—investments, if we will, in the *persons* of their workpeople—react in considerable measure to their own advantage. It is not, of course, the fact that a public-spirited employer, in making arrangements for his workers' welfare, elaborately calculates what precise amount of expenditure upon this object it will *pay* him to undertake. That is not the spirit in which these things are done, and it would be deplorable if it were. It is not, therefore, to be expected that employers who spend money on welfare work on behalf of their workpeople should reap from it a *full* profit for themselves.

[1] *Industrial Betterment*, p. 11.

Nevertheless, it is undeniable, and they themselves are the first to proclaim it, that they do often reap a considerable profit—a profit obviously much in excess of anything that philanthropic expenditure in any other sphere can yield to the philanthropist. Thus, Mr. Tolman writes :

"Our American industrialists are beginning to realize that an intelligent regard and a tactful care for the labour part of the business is not only right, but is a large factor in industrial peace and contentment."[1]

Again, it has been well said :

"The business prizes of the future will go to the ablest generals, and the ablest business general will be the man who most commands the enthusiasm and confidence of his employees, and who knows best how to draw into the working of his concern the latent talent and the diversified ingenuity *which every large body of workers does certainly possess*."[2]

To take one example out of many, I may cite a statement of the treasurer of the Waltham Watch works near Boston in America. It is his opinion

"that all the investments of the Company which tend to make the environment of the workers pleasant—the parks, the lawns, and the gardens near the factory—pay in many ways. Their chief value is in their moral influence upon the workpeople."[3]

The way in which these things react to the advantage of the employer is discussed in Mr. Edward Cadbury's interesting book on Bournville and in Professor Ashley's introduction to that book. In some conditions, especially when the firm concerned is a manufacturer of proprietary articles, the provision of model working conditions is a splendid advertisement. This is so with regard to *Bournville* ; it is so with regard to *Port Sunlight*. Mr. Cadbury and Lord Leverhulme are not generous to their workpeople *for the sake of* the advertisement. Anyone who suggests that is indulging in a very cheap sneer. But, nevertheless, the good conditions that these employers provide *are* an advertisement and, so far, do pay back a considerable part of their cost. Nor is this all. For firms that do not make proprietary articles, the advertisement aspect of the matter is not, indeed, likely to be

[1] Tolman, *Social Engineering*, p. 49.
[2] Quoted by Meakin, *Model Factories and Villages*, p. 35.
[3] *Ibid.*, p. 71.

important. But even for these firms good conditions yield a considerable return. Loss from the prolonged idleness of expensive machines in consequence of strikes and labour troubles is much less likely to occur: loss from intermittent idleness on the part of these machines through unpunctuality and "lost time"—losses, be it observed, which are by no means balanced to the firm concerned by the corresponding reduction of wages that they carry with them—are less likely. And there is yet another important point. Where the conditions of work are good, a cordial feeling is likely to prevail, and so discipline is likely to be good also; and, as Mr. Edward Cadbury writes,

> "When discipline is good and elicits the good-will and efficiency of the employees, the staff and foreman can give practically all their attention to organizing their department, instead of their energies being diverted to anticipating and dealing with breaches of discipline." [1]

In these ways, and in others also, expenditure undertaken by employers to promote the welfare of their workpeople, will, in part, come home in profit, in a way that expenditure undertaken by outside philanthropists would not do. This is a second reason why employers are subject in this matter to a special obligation.

Let us next consider the lines along which some of those employers, who have eagerly taken up the special obligations laid upon them, have in fact found it practicable to proceed. But, before speaking of the detailed arrangements that are made in different places, it is well to emphasize one point that they all have in common. They all start from the position that workpeople are, and should be treated, not as hands merely but as human beings. Take, for instance, this account of the Annual Gathering of Employees at Messrs. Cadbury's works at Bournville:

> "Towards the end of June each year the Annual Gathering of Employees takes place. A half-holiday is given, and all the employees, the men accompanied by their wives, assemble in the recreation grounds. The number present at the 1911 annual gathering was over 7,000. For several years the chief item in a varied programme of entertainment has been two performances of a pastoral play, the parts being taken exclusively by the employees. When the girls' recreation grounds were rearranged, an amphitheatre was constructed to accommodate between 3,000 and 4,000 spectators, who could see and hear with comfort. Last year John Drinkwater's 'An English Medley' was specially written

[1] Cadbury, *Experiments in Industrial Organization*, xviii.

for the occasion, the music being composed by Rutland Boughton. Two years previously Tennyson's 'The Foresters' was given, and also a cantata entitled 'Sherwood's Queen.' The production of these performances is the culmination of many happy weeks of preparation and co-operation on the part of a very large number, and, apart from the healthy pleasure the pageant and pastoral drama always affords, the occasion offers a means of happy intercourse to all grades of employees. In addition to the pastoral play, Morris and other dances are performed, and gymkhana competitions take place."[1]

That account indicates something of the spirit in which things are done. And this spirit is indicated again in a small incidental rule, probably of slight practical importance, established at the same works:

"The names of a few girl employees who suffer from weak heart, etc., are sent by the doctor to the Girls' Work Committee, and these girls are allowed to leave the workrooms five minutes before the usual time of closing, both at the dinner-hour and in the evening, in order that they may avoid the rush, which is inevitable when several thousands are leaving work."[2]

A rule of that kind, trifling and incidental as it is, displays the essential thing—the spirit of personal thought and care with which good employers try to treat their workpeople. This is illustrated again in the establishment in other works—in Mr. Rowntree's works at York, for instance—of the office of Social Secretary. For the Social Secretary's

"main duty is to study the welfare of the employees in every way, to suggest improvements in factory conditions, and to take in hand the organization of clubs and social enterprises. At the same time he or she becomes a kind of link between employer and employed, preventing friction and removing difficulties."[3]

So much being understood as to the spirit in which the welfare work of good employers is carried out, look a little more closely at the various forms it may assume. First, in this connection, we naturally turn to the mechanical arrangement of the factory itself. As regards some structural matters, the law has laid down a minimum below which no employer is allowed to let his factory fall. But, of course, the minimum is a low one, and the good

[1] Edward Cadbury, *Experiments in Industrial Organization*, p. 237–8.
[2] *Ibid.*, p. 96.
[3] Meakin, *Model Factories and Villages*, p. 44.

employer endeavours to reach a considerably higher standard. Thus, as regards ventilation,

"the Brownell photographic factory of Rochester, N.Y., is furnished with apparatus entirely changing the air throughout every ten or twenty minutes, a hot blast bringing the temperature to the level required in winter and an iced blast in summer";[1]

Again, as regards the fencing of dangerous machinery and so forth, much more may be done than the law requires. The employer can make it his business to learn—by resort to the public "museums of safety" and in other ways—of the numerous protective devices that are invented from time to time.

"At Bournville an expert has been appointed, whose business it is to see that all machinery is adequately guarded, in order to prevent accidents. All new machines are also inspected by him, and any extra guards, in addition to those provided by the makers, which can be devised, are fitted. It is also part of his duties to inspect systematically the machinery in all departments, the aim in view being to protect machinery with guards that are safe, durable, clean, and light in weight, and this construction is usually followed."[2]

Again, as regards sanitation and personal cleanliness, good employers, besides providing the more obvious conveniences, can and do arrange for changing-rooms, for the provision of special factory clothes, for bathrooms, for dining-rooms separated from the workrooms, where the workpeople can take their meals in healthy conditions, and so forth. Nor need they stop at the elementary requisites of a civilized existence. After making their factories healthy, they may go on to diminish their intrinsic ugliness. Messrs. Rowntree, for example, are accustomed to hang pictures and baskets of flowers in the workrooms.

"For some years flowers have been placed in the workrooms during the summer time, a considerable piece of ground having been set apart for growing them. Each Monday the gardeners send in a large supply, which are arranged under the supervision of one of the Social Helpers. The flowers help considerably in removing the 'Institutional' character of the workrooms, and are much appreciated by those employed there."[3]

So far I have considered things that good employers are enabled

[1] Meakin, *Model Factories and Villages*, p. 107.
[2] *Experiments in Industrial Organisation*, p. 113.
[3] *Industrial Betterment*, pp. 21–2.

to do for their workpeople on account of the control which they exercise over the mechanical arrangements of their factories. Turn now to a second type of welfare work, the opportunity for which arises out of the fact that employers are able, within limits, to impose conditions on their workpeople in the terms of their engagement. The point is that a number of very valuable things exist, the mere provision of which does very little good, because, unless there is opportunity for a certain amount of pressure, those for whom they are intended will not use them. Now, of course, with workpeople of full age, coercive forms of paternalism are not, for a number of reasons, either desirable or practicable. But with young persons and children, the case is different. Employers have a splendid opportunity of providing them with facilities for physical and mental training, because, unlike outside philanthropists, they can make it a condition of employment that they shall use these facilities. At Bournville Messrs. Cadbury have turned this opportunity to full account. They employ in the factory a large number of girls and boys. A condition of employment is that employees under eighteen shall take part in regular gymnastic classes and in regular and elaborate courses of education, in part provided and in part paid for by the firm.[1] Very careful thought has been expended on these educational arrangements, which are graded to suit the varying capacities of different employees. A similar line of policy is followed as regards health. There are two qualified Works dentists, and it is a condition of employment for young persons under twenty-one that they shall submit to inspection and to whatever treatment is necessary from these dentists. Nor is even this all. For, of course, in matters of health the individual circumstances of different employees differ greatly. Employers enjoy an opportunity, by careful inspection of the wage-sheets of those of their workpeople who are on piece-wages, to detect abnormal conditions and apply appropriate remedies. I can best illustrate this by quoting at length the relevant passage from Mr. Cadbury's book:

"Every girl worker, who does not earn the minimum wage, comes before a director, when a report of her general behaviour is presented.

[1] So far as the education is pursued in evening continuation schools, compulsion to attend is coupled with an offer on the part of the firm to refund the fees to all students who make over 85 per cent. of attendances (*ibid.*, p. 17).

The girl is also examined by the doctor, who reports on her physical condition. The director therefore, when he interviews the girl, has her general record, as well as the doctor's report, and also the report of the forewoman. In a few cases, about 5 to 7 per cent. of the slow workers, it is found that the girls are indolent and lazy. Such cases can be dealt with only by a warning to the girl; and also to her parents, and, unless there is improvement, she is dismissed. By far the larger number of cases are found to be those, who, for some reason or other, are in a state of physical debility. These cases are put under the doctor's care, and given a six-months further trial, on condition that they carry out all the doctor's requirements as to diet, exercise, hours of going to bed, etc."[1]

So far I have spoken of opportunities which are open to the employer on account, first, of his control over the mechanical arrangements of his factory, and, secondly, of his power, within limits, to exercise a sort of paternal supervision over young employees. There remain the opportunities that are open to him in his capacity of wage-payer. If an outside philanthropist wishes, by way of gift, to raise the income of any group of poor persons above what they can earn in the ordinary way by the sale of their labour at market rates, he is confronted with manifold difficulties. For the poor to receive money after this manner is not a dignified thing; it may easily react injuriously upon character and industry; it may even, in some circumstances, cancel itself in injurious reactions upon wages. But with an employer of labour who wishes to be generous in this way there are no such difficulties. No injurious reaction results from the receipt of a day-wage in excess of the normal or of a normal day-wage for hours of labour fewer than normal. No injurious reaction, again, results from the deliberate continuance by a firm of wage payments during periods when it is not really profitable to keep the works open, or even with such continuance of wage payments when, as happened once with Robert Owen,[2] so heavy an industrial depression rules that the factory has temporarily to be closed altogether. Nor, again, does any injurious reaction, but rather the reverse, result from arrangements under which a share of profits, over and above the Union rate of wages, is distributed regularly by a firm to its employees, provided, of course, that no restriction or anti-Union conditions are imposed.

[1] *Experiments in Industrial Organization*, p. 78.
[2] Cf. Gilman, *A Dividend to Labour*, p. 50.

One further point remains. There is a certain danger that chivalry on the part of "good employers" may be associated with despotism. A man of generous spirit may yet have so much human weakness that he wishes to be generous in his own way and to dragoon the people he believes himself to be benefiting. There is something very attractive in the rôle of patron. But economic chivalry, which falls to this temptation, misses its crown. The better way is to enlist the workpeople as active partners in the improvements that are being made, not as mere passive beneficiaries. So far as may be, the control of such social institutions as are set up in the works should be vested in them. For it is through comradeship, not through autocracy, that the good life grows.

III

LONG AND SHORT HIRINGS[1]

A GOOD deal of attention has been paid by economists to the various systems, time-wages, piece-wages, premium plans, and so on, under which employees are remunerated; but very little has been written about another important aspect of the employment contract, namely, the period of time that it covers. The chief reason for this is, no doubt, the very sensible one that, in practice, the legal arrangements about the length of different sorts of appointments are not very important. This statement must not be misunderstood. The actual lengths of time for which people stay in the same posts are immensely important. Employees are continually quitting, or being dismissed from, certain jobs and are continually being taken on at other jobs. Some of these shiftings represent a circulation of different people among a number of posts which employers always desire to see filled somehow, or the introduction into such posts of new employees in place of old employees who have died or retired; others are associated with a temporary or permanent shutting down of certain posts or with a demand on the part of employers for services in posts newly created. It is evident that, the more movement there is, the shorter must be the period for which posts are held. That is to say, a large employee turnover implies, or, more properly, is another way of expressing, a short average tenure of office, and a small turnover a long average tenure.

All this is of great significance, and in the United States, in particular, has been made the subject of interesting studies. But—and this is the point—the formal arrangements that govern periods of appointment are not in actual practice important factors in modifying the movement of employees, or the magnitude of the

[1] From the *Contemporary Review*, September, 1922.

turnover. Where broad forces tend to produce frequent shiftings, long-period engagements are not found. They do not, therefore, obstruct shiftings that would occur apart from them. On the other hand, where broad forces tend to produce stability of employment, short-period engagements are not incompatible with this; because a man, whose engagement is legally by the week, or even by the hour, may perfectly well be employed in the same post all his life. Thus, nominally, the higher civil servants of this country are liable to dismissal without any notice at all at the pleasure of the Crown; whereas practically their appointments are for life. Again, in Cambridge the headships of colleges and most professorships are life appointments, whereas other university and college officials, whose tenure of office, so long as they desire to retain it, is in practice equally secure, are appointed for varying terms of years; and the principal clerks and other college servants, who are nominally engaged by the month or the week, are practically no whit less permanent than professors. In sum, the legal periods assigned to different appointments are effects rather than causes—epiphenomena that do not themselves signify much. None the less, an attempt to explain their divergences may have a certain interest.

Terms of appointment in regard to period of contract or period of notice have, of course, like terms in regard to remuneration, to be agreed to by employer and employee. Consequently, the factors determining what the terms shall be in various occupations are the desires of the two parties to the agreement; and it is in a study of these desires that an explanation of the variety of arrangements that prevail must be sought. I shall examine from this point of view each of the four principal kinds of arrangement that are found in practice. These may be distinguished roughly as follows:—First, among practically the whole of the manual working classes and among many lower-grade clerks appointments are made for very short terms and at very short notice—not more, as a rule, than a week: among builders' labourers they are terminable at one hour's notice on either side. Secondly, in the higher posts in business and industry appointments are usually made subject to fairly substantial notice, from one to, perhaps, six months on either side: and in domestic service it is usual to

contract for a month's notice. Thirdly, in a few occupations, appointments are made for long terms by a contract binding both parties for the whole period, or the whole job, covered by the contract. In peace time the British soldier's contract is for a definite term of years: during the war it was "for the duration of the war." Finally, in certain professional occupations appointments are made either for life or for long periods of years, subject to a right on the part of the appointee to resign. Appointments of this class are held by judges, some university professors and clergymen of the Church of England. In the old days of slavery, it may be remarked in passing, the slave also had a life appointment, with the important difference, however, that he was not free to resign.

When an employer is engaging a man for a post and considering the comparative advantages of a long or a short appointment, the first question he will ask himself is: is there any serious chance that I shall want afterwards, either permanently or temporarily, to shut down this post to which I am proposing to make an appointment? If he thinks there is a serious chance of this, he will refuse to make a life, or very long, appointment, unless he can compensate himself by a reduced rate of pay for the risk of being forced to keep on his employee in a post that it no longer pays him to operate. Now, even when conditions are such that the employee could probably find continuous work, by moving from one post to another, under a system of short engagements, he will still welcome absolute security of tenure and be ready to take a rather lower rate of pay when this is guaranteed than he would accept otherwise. But, if our employer is one among a good number, it will fairly often happen that, at a time when he is wanting to contract the number of his posts, somebody else will be wanting to expand the number of his. Consequently, an employee will reckon that, by moving about among several employers, he may find more continuous work than any single employer will give him. Let us suppose that an employer wishes to keep the post which is occupied by a particular employee working for thirty weeks out of fifty-two; but that, by moving about, the employee reckons he could get forty weeks' work out of fifty-two: and let us suppose that his rate of pay, if engaged by the week, is £5. Then it will not pay him to accept a year's engage-

ment for much less than £200 a year; but it will not pay the employer to offer for a year's engagement more than £150 a year. It follows that, generally speaking, for posts which an employer reckons he may have on occasions to shut down, he will not be able to obtain employees on long terms at any rate of remuneration that it will pay him to offer. Employers will, therefore, prefer short appointments for all posts which they are at all likely to wish, soon afterwards, to shut down either temporarily or permanently.

Now, since in the main part of industry demand fluctuates, an ordinary employer will always reckon on having from time to time to alter the numbers of his ordinary manual working staff. For example, conditions may be such that at one time it pays him to have a thousand carpenters at work, at another to have 900, and in bad times, perhaps, to have only 600. In these circumstances, he will be very anxious that some 300 or 400, at any rate, of his workpeople shall be engaged on short notice. It would be out of the question for him to hire all of them on, say, six months' notice. But it does not follow from this that he will wish to hire *all* of them on short notice. *Ex hypothesi* he reckons on having 600 places to fill even in the worst times. What will be his attitude towards filling these posts with long-time servants? At first sight it might be supposed that it will be the same as his attitude towards filling higher posts that are never shut down—a subject that will be discussed presently—in this way. In some circumstances this is so. When conditions are such that, on the short-engagement system, he does in fact keep a nucleus of workers permanently in his service on full time, it could not do him much harm to engage the members of this nucleus on long terms. In some occupations, however, it is important to the employer to keep in touch during bad times with more men than he needs then, in order not to have to rely on untried workers when good times return. When this is so, he will desire to meet depressions, not by dismissing certain workers altogether, but by resort to short time. Even if it is not specially in his own interest to do this, he may, none the less, do it from philanthropic motives or to satisfy an eager demand on the part of employees. Plainly, however, if he has the 600 carpenters' posts, which we suppose to represent his needs in bad times, filled by long-time servants,

it is impossible for him to meet depressions by general short time. In his 600 permanent men he has all the labour power that he needs. To put them on short time while paying them the remuneration stated in the long-time contract, in order to be able to give short-time work to other men whom he does not want, would, from his point of view, be sheer waste of money. Hence, he will prefer to hire all his men on short-term engagements.

Let us next consider the attitude of employees in posts of this class. At the present day most manual workers arrange their wages rates and other conditions of service by a process of collective bargaining with employers. As a weapon in this process they attach great importance to the right to strike. Of course, a system of long notice—as distinct from systems of long contract, to be described presently—need not destroy that weapon, because notices can always be handed in. But, if the notice periods are different in different firms employing workers of the same class, it blunts it into practical uselessness. Even if the notice periods were the same in all firms, systems of notice of really substantial length would greatly interfere with strikes by precluding resort to them until after an interval during which the favourable moment might slip by. Employees will greatly dislike the idea of handicapping themselves in this way. They would, of course, welcome an arrangement under which employers were pledged to give long notice of dismissal, while they themselves were free to give only short notice of resignation. But they can have little hope of enforcing a one-sided arrangement of that kind. Consequently, they too are apt to prefer a system of short engagements and to stand out for it even when employers would be ready to adopt another plan. This consideration, taken in conjunction with those set out in the preceding sections, affords a fairly adequate explanation of the arrangements that commonly prevail in the engagement of manual workers.

We have next to study the substantial notice system that is usual in the higher posts of industry and business and also among domestic servants. On the side of the employees the main distinction between posts in these categories and those that we have so far been discussing is that rates of remuneration are not settled by collective bargaining, and that, therefore, considerations about the strike weapon are not here relevant. Consequently,

employees do not object to binding themselves to fairly substantial notice—the more so since a fair-minded employer may be expected, when good reason can be shown, to waive his right to notice if he can do so without serious inconvenience. If, therefore, employers are willing to accept the corresponding obligation to bind themselves, employees are likely to assent. Hence, the issue turns on the attitude of employers. Now, when such a one is employing a great number of men of the same kind, the sudden loss of one or two does not matter very much: no great disaster happens from the fact that, perhaps, a little time is lost in finding substitutes for them. The main work goes on much as before. With domestic servants, however, of whom the ordinary employer only has a few, the sudden loss of one or two would be extraordinarily inconvenient. Again, in businesses and industrial undertakings there are as a rule a comparatively small number of higher posts, on which the whole concern depends. If the occupants of these posts resigned suddenly, the business might be thrown into inextricable confusion. Hence, for these posts—domestic service and the higher offices of business—to enforce substantial notice on the employee is generally to the interest of the employer. On the other hand, to tie himself to substantial notice in respect of these posts, as a sort of payment for tying his employees, does not generally hurt him much. The posts are of such a character that he is very unlikely, within any reasonable notice period, to want to shut them down. Of domestic servants' posts this is obvious. Of the higher business posts it is no less true; for these have to be kept going somehow even in the worst times. Hence, on balance, even allowing for the fact that a system of substantial notice may prevent them, for a short time, from substituting a better cook or business manager for a worse one, employers have good grounds for favouring appointments on the long-notice plan. This attitude on their part, coupled with the—at worst—not unfavourable attitude of employees, has its natural result in the establishment of that system.

The system of long contracts binding both sides for the duration of the contract, whether the contract relates to a definite period or to a definite job, has a considerably narrower range of operation. Contracts that relate to the duration of particular jobs are made in a few occupations in consequence of the peculiar character of

certain jobs. It would obviously be useless to engage a seaman who was free to resign in the middle of the ocean, and nearly useless to engage a soldier who was free to resign as soon as a war became unpleasant. Contracts of appointment for definite periods of time need closer consideration. If a particular employer were to take on all his contract-men for equal periods, say, six months, at the same moment, the arrangement would, for most important purposes, resemble a system of appointment at six months' notice on either side. What need be said concerning this is, therefore, covered by the previous discussion of long-notice appointments. When, however, an employer takes on his contract-men, not all at once, but at various times, a new situation is created. For under this arrangement the employer is prevented from dismissing more than a comparatively small proportion of his staff at any one moment, and no more than a small proportion of the staff are free to withdraw their labour at any one moment. In effect, this arrangement debars employers from the weapon of a lock-out, and employees from the weapon of a strike.

Generally speaking, employers would be willing to accept the bargain in industries of stable demand. In fluctuating industries, however, it might prevent them from reducing their staff as much as they would wish to do in times of sudden depression, and, even if it did not do this, it would limit their selection of men to be dismissed to those whose contracts happened to be falling in at the moment. Hence, they might be expected to hang back. On the employees' side, the arrangement might be acceptable as regards posts where salaries are fixed by individual bargaining; but, where there is any question of collective bargaining, it would, as a rule, be violently opposed. It is true that the South Metropolitan Gas Company, by the offer of a special inducement in the shape of profit-sharing, has persuaded a number of its men to accept three- or six-monthly contracts. But nothing of the sort is to be found over the main body of industry. The army is in an altogether exceptional position. Here, since a concerted strike, however well justified, might lead to overwhelming national disaster, not only are recruits enlisted for long contracts, which, of course, terminate at different dates for different men, but collective bargaining in any form is prohibited.

There remain life appointments, or very long appointments,

subject to the right of the appointee to resign, such as are given to judges, university professors and clergymen. Naturally, there can be no question of this type of appointment except for posts that are of a permanent nature and not subject to the influence of cyclical, seasonal, or even secular fluctuations. Granted that this condition is satisfied, the crucial question for an employer is: "If I appoint a particular man to this post, is there any serious chance that I shall wish to appoint another in preference to him within the period covered by a very long engagement?" Evidently, unless the employer can make sure somehow that the man he is appointing is suitable, he is bound to answer "Yes" to this question, and, therefore, to oppose this type of appointment. Hence, the type is only feasible when the qualifications of candidates can be thoroughly tested. This may be done by the device of a probation period, the candidate being taken on, say, for a year or six months on trial, and, thereafter, appointed definitely if he proves himself suitable. This device is not, however, always necessary. In posts such as judgeships or professorships at a university the candidates are usually persons of some age and known standing, and it may be safe to make appointments on the basis of their records.

It is not, however, enough for an employer to assure himself that a candidate is suitable at the time he is appointed; for he may become, in various ways, unsuitable later on. Hence, in actual fact there are no such things as absolutely unconditional life or very long appointments. Machinery is always provided for removing a man who becomes grossly and obviously unfit. The appointment may be made, not for life simply, but for life "or good behaviour." Even judges *can* be removed through joint action by the two Houses of Parliament. Moreover, there may be provisions as to superannuation on a pension at a defined age—a device designed to guard against senility.

It must be recognized, however, that, though in these ways the risk of having to retain an employee who has become unfitted for his work can be mitigated, it cannot be altogether removed. Life appointments and very long appointments, however carefully safeguarded, may saddle an employer after a time with a man with whose services he would have preferred, had he been free, to dispense. The point is, indeed, less important in real life than it

might seem to be at first sight, because, when an employer has employed a man for a long time even on a system of short engagements, he will feel a moral obligation to keep him on, that may fetter his practical freedom nearly as much as a legal contract. Still, the legal loophole is something. If it is closed, an employer may be forced, much against his will, to keep an inefficient employee long after he wishes to dismiss him. When this chance carries with it the risk of a large money loss, he will generally refuse to take it. Hence, in industry and business, where the retention of an inferior manager, for example, might mean collapse in the face of competitors, life appointments and very long appointments are hardly ever found. They are confined to occupations where the appointee is not called upon to render services that have to be sold in the market in rivalry with other services, or that enter into commodities destined to be so sold. This condition is completely satisfied for judgeships and the posts occupied by clergymen. It is satisfied in the main for university professorships, in spite of the fact that different universities are, in some degree, competitive seats of learning and teaching. Nobody, of course, denies that incompetence in a judge, a clergyman, or a professor may be socially just as wasteful as incompetence in a business manager. But the waste is not reflected in a direct money loss to the employer. Consequently, he is here less keen to reserve the right of getting rid of an employee who falls below the normal standard of efficiency, and more willing to make very long appointments.

What has been said so far merely displays the conditions under which employers will not actively object to appointments of this class. It does not, of course, follow that, when these conditions prevail, they will actually make such appointments. It remains, therefore, to ask whether they will ever *positively prefer* them. There are some posts in which a dignified appearance is an element in efficiency, and it may be held that a long-time appointment contributes something to this. But there is a more important point. Contemplating certain classes of his employees, an employer may have an uneasy feeling that, if he is left free to dismiss them at will, he may be tempted on occasions to exercise his power in an anti-social way. Thus, the Executive Government may be tempted to dismiss a judge, not because his decisions are bad law, but because they run counter to its own political desires. When

wealthy individuals have financial control over a university, they may be tempted to dismiss a professor of political economy, not on scientific grounds, but because his writings appear to them to have an influence adverse to the interests of capital. When a congregation appoints its minister of religion, it may be tempted to make retention of office conditional upon a flattering subservience. These things do harm both directly, by getting rid of good men, and also indirectly by subverting the *morale* of others who are not got rid of. Well-intentioned employers, recognizing their own weakness, may positively prefer to put temptation out of their way by the device of appointments for life or very long terms.

IV

UNEMPLOYMENT AND THE GREAT SLUMP[1]

In social, as in individual ills, the first step in the search for a remedy is to understand the nature of the disease. Unemployment is a social malady of which we have had repeated experience. The outbreak, which followed upon the great post-war boom, and continues even yet, has been more widespread and more serious than any others of which there are statistical records; but it has not been different from others in essential character. Experience of the past and analysis undertaken in the past are, therefore, relevant to the diagnosis of it. In this article I shall ask two questions. The first is a general one: While, as everybody knows, an enormous mass of human wants remain permanently unsatisfied, how is it that, from time to time, in all countries of the world, a great number of men are thrown into involuntary idleness? The second question is: In what way is the abnormal volume of unemployment in the great slump of 1921 and the following years, as compared with other periods of depression, to be accounted for?

The industrial population of this and every other country is divided into a number of groups of people, each group containing in various proportions employers, providers of capital equipment (including land), technical staff and manual workers, and each engaged in some branch of productive activity. The members of each group consume, of course, some part of their output themselves, but, in the main, they exchange it against the output of the remaining groups or of corresponding groups outside the country. The size of the different groups is determined by the tendency of people so to distribute their capital and their mental and manual

[1] From the *Contemporary Review*, December, 1921.

capacities among different occupations that no one of these is obviously more advantageous than another to a man making choice between them. If everything were working smoothly in a "stationary" state, every group would have exactly as much work to do as it wanted to have, and would obtain regularly, for the proceeds of that work, exactly the amount of other people's products that it had reckoned to obtain when it began its own work. The actual world, however, is not in a "stationary" state, and, consequently, these ideal conditions do not prevail.

On occasions the output of one of the groups in the country, or of one of the groups outside which trade with the country, falls off in consequence of bad harvests, war, labour troubles, or some other cause. When this happens, the group affected will not offer so much of its product as before in exchange for the products of the other groups. Again, it will not offer so much if, in the recent past, it has for any reason purchased exceptionally large stocks of the products of other groups and so does not, for the time being, need any more of them. In circumstances of this kind the real demand for the products of some, or all, of the other groups falls off, and, in general, therefore, they do not care to work so hard or to produce so much of their own product as before.

These fluctuations are made larger than they would otherwise be because in modern industry many processes of production take a long time, and so each group has to adjust its action, not so much to actual real demands from other groups as to forecasts of their real demands. The way is thus opened up for error. When there is an actual increase, or good ground for expecting an increase, in the real demand for its stuff, an industrial group, warmed in the rising sun of prosperity, often imagines that the outlook is better than it really is. This sort of error is infectious. Each of the groups severally becomes unduly optimistic about the future real demand of the others collectively. Each expects to get, say, twice as much of other people's stuff as before *if* it provides *half* as much again of its own; and it decides that this is worth while. When things have worked themselves out, however, it is found that each has produced only half as much again as before. This half as much again is exchanged for the half as much again produced by the others, that is, on much less favourable terms than had been expected. Consequently, every group is disappointed.

Its error of optimism tends to turn into an error of pessimism. Just as it had before over-estimated the prospects of the demand of the other groups, so now it under-estimates them. If some real cause of falling demand, such as a bad harvest, comes into play at the same time, the significance of this also tends to be exaggerated. All the groups now see life blacker than it is, just as before all of them had imagined an unreal brightness.

The above analysis is plainly very incomplete and, in order that it might give an adequate account of the facts, would require to be expanded in many ways. For the present purpose, however, what we need is something different. On the lines laid down, it may be argued, a tolerable explanation might be built up of fluctuations in the amount of output that the various industrial groups *choose* to provide. But what is thus accounted for is something *voluntary*—voluntary swings upwards and downwards in productive activity. What bearing, it may be asked, can this have on unemployment? For unemployment is not voluntary, but notoriously involuntary. Workpeople in periods of industrial depression do not *choose* to be out of work. They are compelled by circumstances wholly outside their control. How is our "explanation" to bridge this gap? How does the voluntary relaxation of effort on the part of industrial groups translate itself into the cohorts of men vainly seeking employment which characterize the industrial depressions of real life?

The solution of this puzzle is to be found in the internal structure of the several producing groups. These are not, as it were, homogeneous collections of equal partners. They are more or less organized bodies headed by business men who, either out of their own pockets or out of borrowings, pay at agreed rates for materials and services and look to recoup themselves for their outlay by subsequently exchanging the output of their group against that of others. It is these men who decide how much their group shall produce. When they are confronted with an actual or expected fall in demand, to maintain the old output must mean for them, unless they can somehow reduce their costs, at least a substantial reduction in the reward of their own effort, and, it may very well be, a positive net loss. Consequently, they decide—and for them the decision *is* voluntary, though made under strong pressure—to cut down the scale of production. But

cutting down the scale of production *means* either dismissing work-people altogether or working them short time. From the point of view of the workpeople this is coercive, not voluntary. The captains have *chosen* to retreat: the soldiers are *compelled* to obey. This is the link that was needed to bridge the gap in our argument. When it is introduced there is a complete skeleton account of the way in which outbreaks of unemployment associated with industrial depressions—we are not now concerned with the comparatively small amount of unemployment that always exists among specially inefficient persons or persons in transit from one job to another—are usually generated.

These outbreaks, and the swings of business activity that are responsible for them, would take place under the influences I have been describing even in a world in which money and banking were unknown. In the actual world they are intensified by reflex price influences. In " good times " people turn over their balances more often than usual, and also enlarge them by borrowings from banks. The result is that prices go up. Fixed interest payments, however, do not go up; and wages, though they tend ultimately to follow the price movements, are apt to lag behind. This means that business men in good times secure a sort of bonus at the expense of people in receipt of fixed incomes and, in a less degree, of wage-earners. This spurs them on to further optimism and drives the boom higher. On the other hand, in " bad times," bank balances are turned over less rapidly and reduced in amount, with the result that prices fall. But fixed interest payments do not fall, and wages, though they tend to fall, again lag behind prices. This means that business men are compelled to pay a sort of tax to people in receipt of fixed income and to wage-earners. This intensifies their losses, magnifies the discouragement from which they are suffering, and causes them to contract their operations more violently than they would otherwise need to do. The monetary arrangements of the modern world thus play an important part in the causation of periodic outbursts of unemployment; and the discussions, which were current among economists before the war, of currency devices designed to make general prices more stable, were far from being, as is sometimes supposed, an academic amusement irrelevant to practical affairs.

This general analysis gives a basis for studying the special

characteristics of the great slump which began in 1921. A depression of abnormal intensity accompanied by an abnormal amount of unemployment came to prevail over a large part of the world. What happened in other countries was, of course, since it involved the cutting down of the foreign demand for the products of our industries, in one sense a cause of what happened here. But, from a wider point of view, what happened in other countries and what happened here were not so much causes of one another as joint products of a common cause. The *world* fell out of joint. The separate parts jostled one another because they were all being jostled together by something that shook the whole. What then was this something?

In attempting to find an answer to that question it is necessary to draw a distinction. Over wide regions there was unparalleled unemployment. Over wide regions, too, were to be found destitution, famine, capital destroyed, established organizations and economic bonds shattered, blockades and tariffs, "a sort of warfare," an armed peace. It is natural to suspect that these things were the direct and immediate cause of the prevailing unemployment. Inherently, however, though they cause *poverty*, such things do not cause *unemployment*. When a primitive man's shelter is burnt down and half his stores destroyed, the natural sequel is that he does more work than before and not less. In like manner, the natural sequel to a devastating war is that the peoples of the world do more work and not less. If they choose not to do more work, they can only conserve their leisure at the expense of having less real income to consume. This is the *ultimate* social consequence of a great war—a consequence that does not involve unemployment. It would be wrong, however, to infer from this that the common opinion, which traces the great slump at least in part to the war, is wholly mistaken. For, alongside of destruction, there went also *dislocation*. Industries, in this country as elsewhere, had been built up and workpeople had been trained to serve the needs of particular foreign markets. Many of these markets were, in great part, destroyed. Either they had to recover, or new markets had to be found, or the industrial population had to be redistributed in different proportions among different industries. Transitions of this kind cannot be accomplished without people being thrown out of work in the process. Ultimately, no doubt,

adjustment is made. But, till it is made, the dislocating, as distinct from the destructive, influence of a great war must tend to swell the volume of unemployment, and anything, therefore, that mitigates this influence makes, *pro tanto*, for recovery. This is well known, and is generally admitted—though, unfortunately, theoretical agreement is not always accompanied by practical support.

It is not, however, solely or even mainly to the war dislocations that the great slump was due. In large measure the world collapse was an aftermath and consequence of the world boom that preceded it. It represents the downward phase of an abnormally intense industrial cycle. During 1919 and 1920, with Governments everywhere continuing to finance themselves by bank credits and paper money, prices moved rapidly upwards, and business men found that they could always sell their stuff for much more than it had cost them to make and hold it. Everybody perceived the terrible dearth of goods in war-ravaged countries, while many failed to realize that real demand is constituted, not by needs only, but by needs combined with power to buy. Intending dealers, therefore, placed orders and made purchases with reckless improvidence. The central banks, since the export of gold was banned, were no longer forced to protect the specie reserve by their own prudence, and were anxious not to embarrass the efforts of their Governments to raise or renew loans. Consequently, they delayed to apply to a too exuberant industry the well-tried break of heightened money rates. Masses of goods of all sorts were piled up in anticipation of high-priced demands, and it seemed that an era of fabulous prosperity had dawned. This state of things could not continue indefinitely. The gains that rising general prices bring to business men are obtained by the secret mulcting of those persons who depend upon fixed money incomes. This source of gain is not inexhaustible; for, if prices rise far enough, the real value of previously existing fixed incomes will practically disappear. Over the greater part of the world, however, this ultimate cure of an inflationist boom has not been called into play. The weight of accumulating stocks frightened people; the outcry against rising prices swelled continuously; the demand of the labouring class for a larger share of the business man's abnormal profit became more insistent; the banks, more and more extended with increasing loans to carry the growing stocks, at length raised

their rates; people began to be afraid that the upward movement of prices would not continue or might even be reversed. Then the boom broke; orders ceased abruptly; holders of large stocks were forced to realize at a loss; prices, after a slow start on the downward path, tumbled headlong. Wages that had lagged behind the rise were not easily reduced on the instant of the fall, while persons who had lent at fixed money interest to business men in the period of the boom had now to receive a larger real payment. Production for immediate delivery ceased to be profitable, and production for future delivery on long-time processes the industrial community, now turned pessimist, feared to undertake. The slump has been abnormally intense because the boom it followed was abnormally intense. Men's minds had swung towards business optimism with extraordinary violence; the sequel was a reaction of like degree. In short, confidence was shattered, and confidence is the mainspring of industrial activity.

The great slump, though there are signs of improvement, is not yet (1923) over. The fundamental thing needed to dissipate it, over and above all palliative measures, is, if our analysis is right, a recovery of business confidence. As Dr. Marshall has said in another context, the greater part of the evil associated with an industrial depression "could be removed almost in an instant if confidence could return, touch all industries with her magic wand, and make them continue their production and their demand for the wares of others."[1] But confidence is not easily restored while the currencies of the greater part of the world remain disordered; nor is it easily restored while political conditions are inchoate and obscure. An improvement in political conditions would, moreover, enable Governments to deal more firmly with their currency difficulties, and so would indirectly, as well as directly, help the return of confidence. Of course, there are other factors at work. Business confidence is dependent on many things besides the operations and policies of Governments. But that factor—though there is no way of measuring its exact quantitative significance—is, beyond doubt, important. The moral is plain. Nearly five years ago the war ended. Since then there has been an *interregnum* of neither war nor peace. Let the *interregnum* also end.

[1] *Principles of Economics*, p. 711.

V

A MINIMUM WAGE FOR AGRICULTURE[1]

I

It is the tradition of English legislation that the State shall not interfere in private industry except with the purpose of remedying some definite abuse. Some persons, of course, approve of and advocate State action on grounds of general principle. The main body of social reformers are not, however, Socialists in that sense. They hold that "the system of natural liberty," for all its faults, works, on the whole, fairly satisfactorily; that interference from outside with the complex and delicate mechanism of a modern industrial community is a matter of such difficulty that mistakes leading to serious consequences may easily be made; and that, therefore, the burden of proof lies always on those who advocate, rather than on those who oppose, such interference. In short, before they will agree that governmental interference is desirable, they require evidence that some definite evil exists, for the combating of which there are no other readily available means. The proposals, which have recently assumed practical importance, for the establishment of Wages Boards instructed to determine minimum rates of wages for agricultural labourers, have been put forward by their authors with a full recognition of this general attitude of Englishmen towards State action. The burden of proof is admitted and has been taken up. There is, the advocates of these proposals declare, a definite evil, urgently crying for a remedy, in the low wages that agricultural labourers in many parts of the country can be proved at the present time to receive. Their wage-

[1] Reproduced with modifications from *The Nineteenth Century*, December, 1913.

rates are in many districts "too low," and it is, for that reason, the business of the State to raise them. Indictment and practical proposal go together. The latter is grounded upon the former, and the two must, therefore, be examined in close connexion with one another.

II

It is plain enough that no problem is likely to be attacked successfully till such ambiguities as may lurk in the statement of it have been removed. With the present problem preliminary work of this kind is urgently needed. For the general notion of a wage-rate that is "too low" is not clear in itself; nor is it interpreted in the same way by all those who make use of it. A moment's reflexion shows that the term carries an implicit reference to some rate of wage, which, if established, would be proper and right, and of which the actual wage falls short. Among those persons, however, who maintain that agricultural wages are frequently "too low," there are two broad groups. The one contend that a considerable number of agricultural labourers receive less than a "fair wage"; the other, that a considerable number receive less than a "living wage." These two conceptions are not equivalent; nor is the practical policy built upon the notion of the fair wage by any means identical with that built upon the rival foundation. Before, therefore, any attempt is made to investigate the effects of current proposals, it is desirable to examine the meaning and validity of the claims that existing agricultural wages frequently fall short of a "fair wage" and of a "living wage" respectively.

III

The exact meaning of the term "fair wage" is by no means easy to define. Dr. Marshall has suggested that the rate of wage prevailing in any occupation may be considered "fair," when it is "about on a level with the average payment for tasks in other trades which are of equal difficulty and disagreeableness, which require equally rare natural abilities and an equally expensive training."[1] A fair wage in this sense is equivalent to what

[1] Preface to Mr. L. L. Price's *Industrial Peace*, p. xiii.

economists call the "normal wage." It is the wage that would prevail in the occupation if economic forces had perfectly free play; that is to say, if the workpeople had complete knowledge as to the rates of wages prevailing everywhere, and were not hindered in any way from moving from points of relatively low rates to points of relatively high rates. It is, in short, the usual rate of wages that is paid to workpeople of similar efficiency elsewhere. This view of the meaning of fairness conforms roughly to the common understanding of the term. In the abstract it is simple and clear enough. So soon, however, as we attempt to apply the conception to particular problems, a serious difficulty emerges. Within what limits are we to interpret the term "elsewhere"? The current, or predominant, rate of wages for workpeople of a given degree of efficiency is not necessarily the same in all districts or occupations. I do not mean by this merely that the money rate of wages is not everywhere the same; for, of course, money differences may be wholly nominal, being offset and balanced by exactly compensating differences in the cost of living in different places and in local or trade customs concerning additional payments in kind. Besides nominal differences, however, there may, and often do, exist real differences between the money's worth of the rate of wages ruling for work of given efficiency in different districts or occupations. About this fact there is no dispute. If, then, the real rate of wages paid to a workman in one district or occupation is equal to the rate current for similar work in that district or occupation, but lower than the rate current for such work in certain other districts or occupations, are we to say that the rate is fair or unfair? From our present point of view, this question, though it appears at first sight to be of more substantial significance, is really concerned with nothing more than the definition of a term. I propose, therefore, to get over the difficulty which it suggests by a verbal device. When a wage-rate is paid equal to the rate current for similar workmen in the same trade and neighbourhood, I shall call that wage-rate "fair in the narrower sense"; and, when a rate is paid equal to the predominant rate for similar work throughout the country and in the generality of trades, I shall call it "fair in the wider sense." This distinction is, of course, not precise. It will serve, however, for the purpose at present in view. Let us, with its

help, investigate the charge that the wages of agricultural labourers in England are frequently "unfair."

It is sometimes thought that unfairness in the narrower sense is demonstrated by the fact that real wages (allowance being made for differences in the amount of payments in kind) often differ very considerably as between individual farms in the same county. To what extent variations of this kind exist cannot be definitely determined. It appears from Mr. Wilson Fox's inquiries that, in the purely agricultural counties, such as Norfolk and Suffolk, the difference between the highest and lowest rates paid in the several rural districts is generally in the neighbourhood of 1*s.* or 2*s.*[1] The recent Land Inquiry Committee reach the same general conclusion, though their emphasis is different, when they write:

> "Again and again we have found two farms, almost side by side, where the total earnings of the labourers varied by as much as 2*s.* a week."[2]

In the counties which are not purely agricultural considerably larger differences are found. Thus, Mr. Wilson Fox writes that, in counties

> "such as Durham, which contains coal mines, in Essex, which abuts on the metropolis, or Worcester and Warwick, where the agricultural industry in certain parts is considerably affected by the proximity of Birmingham and other manufacturing districts of the Midlands, the differences amount to as much as 7*s.* or 8*s.*"[3]

If, therefore, the fact that differences exist between the wage-rates paid to agricultural labourers in the same neighbourhood is a proof of "unfairness in the narrower sense," the prevalence of such unfairness on a considerable scale may be taken as established. And the case is exactly similar with "unfairness in the wider sense." It is well known that the average real wages of agricultural labourers are very much lower in some counties than in others. In 1907 the average weekly earnings of ordinary agricultural labourers (payments in kind and so forth being counted in) were in Derbyshire and Middlesex over 20*s.* and in Lancashire 19*s.* 10*d.*, while in Norfolk they amounted only to 15*s.* 4*d.*, and

[1] *Second Report on Earnings of Agricultural Labourers*, 1905, p. 150.
[2] *Report of the Land Inquiry Committee*, p. 18.
[3] *Second Report on Earnings of Agricultural Labourers*, 1905, p. 150.

in Oxfordshire to 14*s.* 11*d.* The remaining counties of England had weekly earnings intermediate between these extreme figures, while in Ireland earnings were everywhere much lower, falling in Mayo, Roscommon, and Sligo below 10*s.* a week.[1]

The common assumption that facts of this kind can be taken to prove the prevalence of unfairness is, however, over-hasty. For the statistics, though, of course, they demonstrate that agricultural workmen in different counties and parts of counties receive widely divergent wage-rates, do not demonstrate that agricultural workmen *of similar efficiency* receive divergent wage-rates. So far as the figures go, no unfairness need exist, but all the divergences recorded in the weekly earnings might exactly correspond to divergences in efficiency. Nor need we stop at the proof that this is *possible.* It is certain that at any rate a considerable part of existing divergences in wages are associated with divergences in efficiency. Agricultural wages in the North of England are, for example, well known to be much higher than in the South. But it is also well known that, in Mr. Wilson Fox's words, the labourers of the North "have been right away through from the beginning of last century a finer race, physically and intellectually, than the Southerners."[2] Moreover, the knowledge that agricultural wages are higher in some places—in the neighbourhood of mines and factories, for instance—than elsewhere acts as a magnet to attract the more efficient workers there, while the difficulty that less efficient men are likely to experience in finding employment at the higher rate tends to drive these men away. The same sort of obstacle stands in the way of attempts to prove that wages in agriculture generally are unfairly low relatively to wages in other occupations. Statistical argument on such matters can hardly be made conclusive.

We know, however, in a general way, that agricultural workmen are exceedingly ignorant of what is going on outside their immediate neighbourhood, that their poverty is too great to allow them to hold out for long against attempts to break down, or keep down, the price of their labour, and that they are without the support of a trade union organization. These circumstances place them in an exceedingly weak position for

[1] Cd. 5460, pp. xvii. and xxv.

[2] *Journal of the Royal Statistical Society*, 1903, p. 318.

bargaining with the farmers—a position, too, whose weakness is further emphasized when, as often happens, their employers are also the persons from whom they hire their houses. Conditions of this sort are obviously favourable to the existence of unfairness, both in the narrower and in the wider sense of the term, in the wage-rates which they find it necessary to accept. The substance of the matter is that farmers, if they wish to be unfair, are so situated that their will cannot readily be thwarted. This does not, of course, make it *certain* that unfairness, in fact, prevails. We shall not, however, be libelling human nature if we assume that it makes the prevalence of a considerable mass of unfairness in a high degree probable. With the information at present available it is not possible to say more than this.

IV

The conception of the "living wage" is in some ways even harder than that of the "fair wage" to define precisely. In its most obvious and natural sense, the term seems to mean a wage sufficient to enable the recipient of it to attain, without further help from charity or the Poor Law, to a certain definite standard of life, below which public opinion holds it unreasonable that the estate of any citizen should be allowed to fall. It is plain, however, that, if the conception is to be taken as the corner-stone of a practical policy, it cannot be given so general an interpretation as this. For the sum of money required to provide a living wage in the above sense will clearly be quite different for different workpeople. An income that affords more than a "living wage" to a bachelor, or to a man with a grown-up family whose sons and daughters are contributing largely to the expenses of the household, may afford much less than a living wage to the father of a number of children as yet too young to earn anything. In view of this difficulty, those social reformers who aspire to use the conception of the living wage in practice find it necessary to restrict in a somewhat arbitrary manner the meaning they attach to it. A living wage becomes for them a wage sufficient to enable a workman with a family of average size, and experiencing average good fortune in respect of sickness and unemployment, to attain throughout his working life to the standard of living that is deemed to constitute a reasonable

minimum. The Land Inquiry Committee approached the question along these lines, and reached the conclusion that a living wage is

> "such a sum as will enable the labourer to keep himself and an average family in a state of physical efficiency and to pay a commercial rent for his cottage."[1]

It is in the light of the term thus defined that they condemn the existing state of agricultural wages in England. Their charge, furthermore—and this is an important point—is not based in any way upon the fact that certain old and infirm labourers are paid at a very low rate. They agree that, as things are, such men often must be paid less than a "living wage," and they even lay it down that,

> "in any legislation dealing with the minimum wage for agricultural labourers, the farmers shall be allowed to pay lower rates to the old and infirm than to the rest of their labourers."[2]

When, therefore, they assert that existing wages in agriculture are frequently less than a living wage, their meaning is that the wages, not merely of exceptionally inefficient persons, but of ordinary able-bodied labourers, frequently fall short of this ideal. This is the indictment whose validity we have to investigate.

It is well known that the amount of the weekly earnings which are required to enable a labourer to keep himself and an average family in a state of physical efficiency has been made the subject of study by a number of writers. It is also well known that such calculations are necessarily exposed to much doubt—so much doubt, indeed, that I am unwilling to commit myself, in however guarded and general a way, to any specific figure. Detailed calculations, however, as to the precise earnings which would constitute a living wage are not necessary for our purpose. The facts as to the actual earnings of agricultural labourers are of a kind to make such accuracy superfluous. The most recent official inquiry on the subject refers to the year 1907, and its broad results are embodied in the following table.[3] The amounts stated refer exclusively to "adult male agricultural labourers regularly employed," and they are inclusive of the estimated value of

[1] *Report of the Land Inquiry Committee*, p. 47.
[2] *Ibid.*, p. 50. [3] Cd. 5460, p. xii.

allowances in kind and of all extra cash earnings such as those paid at harvest.

AVERAGE WEEKLY EARNINGS IN 1907 OF

Country.	Ordinary Labourers.	Horsemen.	Cattlemen.	Shepherds.	All Classes.
	s. d.	s. d.	s. d.	s. d.	s. d.
England	17 6	18 9	19 1	19 7	18 4
Wales and Monmouthshire	—	—	—	—	18 0
Scotland	18 11	19 8	19 4	20 5	19 7
Ireland	—	—	—	—	11 3

In addition to the above statement of general averages, detailed information as to the average earnings of all classes of agricultural servants jointly is furnished for each county separately. The counties in which earnings were highest in each of the four countries are shown in the following table: [1]

England.		Wales and Monmouthshire.		Scotland.		Ireland.	
County.	Average Weekly Earnings.	County.	Average Weekly Earnings.	County.	Average Weekly Earnings.	County.	Average Weekly Earnings.
	s. d.		s. d.		s. d.		s. d.
Durham	22 0	Glamorgan	19 3	Dumbarton	21 7	Antrim	14 0
Northumberland	21 6	Flint	18 10	Stirling	21 6	Dublin	13 2
Lancashire	21 0	Brecknock	18 9	Lanark	21 5	Down	13 1
Middlesex	20 10			Clackmannan	21 4		

The counties in each country in which earnings were lowest are shown in the next table: [2]

England.		Wales and Monmouthshire.		Scotland.		Ireland.	
County.	Average Weekly Earnings.	County.	Average Weekly Earnings.	County.	Average Weekly Earnings.	County.	Average Weekly Earnings.
	s. d.		s. d.		s. d.		s. d.
Oxford	16 4	Cardigan	16 6	Caithness	14 6	Roscommon	9 8
Dorset	16 6	Montgomery	16 7	Shetland and Orkney	15 4	Mayo	9 9
Norfolk	16 6	Radnor	16 8			Sligo	9 9
Suffolk	16 7					Westmeath	9 9

[1] Cd. 5460, p. xii. [2] *Ibid.*, p. xiii.

These averages for all classes of agricultural labourers are, of course, higher than the corresponding averages—which are only available for England and Scotland—for ordinary agricultural labourers. The figures for these men in the English and Scotch counties of lowest wage are:

	s.	d.
Oxfordshire	14	11
Norfolk	15	4
Suffolk	15	9
Caithness	14	2
Shetland and Orkney	13	10[1]

The average county earnings shown in the last of these tables are evidently very low; and it must, furthermore, be recollected that the earnings of a considerable number of individuals are likely to fall some way below the average of their county. In these circumstances it seems to me evident, without any elaborate study of retail prices and food values, that many agricultural labourers must be earning less than is required to maintain the full physical efficiency of themselves and their families. No doubt, their evil estate is mitigated by the fact that those with the largest families, and therefore the largest needs, are often helped by the earnings of some of their children. When all is said, however, weekly earnings of sixteen, fifteen, and fourteen—to say nothing of eleven—shillings for adult able-bodied men can hardly be called living wages, in any sense that will allow humane men to contemplate them with satisfaction.

V

Our inquiry into the indictment levied against the existing state of agricultural wages is now complete. The ground is, therefore, prepared for the question whether a legal system of minimum wages designed to prevent the hiring of labourers (other than old and infirm persons, for whom special provision must be made) for less, on the one hand, than fair wages, on the other hand, than living wages, is likely to prove, on the whole, socially advantageous. In the present section I shall discuss the efficacy of the legal minimum as a remedy for "unfair" wages, and, in this

[1] *Ibid.*, pp. xvii and xxiv.

connection, I shall deal first with the problem of "unfairness in the narrower sense." Thus, it will be presumed that the predominant rate of wages in some district is a fair rate, but that certain individual farmers within the district are paying to men of normal efficiency less than the predominant rate. What would be the effect of a legally imposed minimum wage, so arranged as to prevent them from doing this? We are here, it will be noticed, upon ground which the practice of industry has already often traversed. The idea of compelling all employers in a district to pay a wage not less than that currently paid by reputable employers there lies at the back of the trade union policy of the "standard rate." It is also frequently embodied among the conditions which municipalities and other public bodies impose upon firms tendering for contracts. To such a policy it is often objected that some of the employers—in the particular case we are now considering, some of the farmers—are working under such conditions that to forbid them to pay less than the current ruling rate of wages would mean compelling them to abandon their business, and so, by rendering their former workpeople unemployed, would worsen, instead of bettering, their position. This objection is, however, a short-sighted one. In the first place, such farmers as employ their energies in screwing advantage out of the ignorance and necessities of their labourers, if prevented from engaging in this form of anti-social activity, would be stimulated to divert their energies towards abler management of their business; and so might, in the end, be little worse off than before. In the second place, "bad" employers who beat down their workpeople's wages are often impelled to do this by the fact that they are themselves of inferior capacity as compared with their competitors, and are, therefore, unable, by the employment of legitimate methods only, to maintain their position. It is quite true that the enforcement upon them of the wage-rate current among "reputable employers" would tend to drive such men out of business. That, however, is a desirable, and not an undesirable, result. It does not mean that their place in industry would become vacant, or, in the special case of agriculture, that their farms would remain unoccupied. It means rather that more capable men would take their place, who, just because they were more capable, could afford to pay the current rate of wages. In

fact, the enforcement of this rate upon all farmers, by putting competition upon more equal terms, would strengthen and speed up the socially advantageous tendency towards the suppression of less competent by more competent agriculturists. At the moment when it forced the disappearance of an incompetent farmer, it might, indeed, throw some labourers out of work. This, however, would be a momentary evil. In a very short time a new employer for their labour would take the place of the old. The demand for labour in agriculture, on the whole, would not be diminished, but, on the contrary, would be slightly increased. Labourers upon whom formerly exploitation was practised would now be exploited no longer. Their employment would be as extensive as before; their wages would be rather larger; and there would be no compensating evil to be set against this gain.

In some circumstances a similar optimistic forecast can be given concerning the effect of minimum wage legislation designed to combat unfairness in the wider sense—to prevent, that is to say, the predominant rate of agricultural wages in particular districts from standing below the rate current for work of corresponding efficiency in the generality of districts and in other occupations. There is reason to believe that farm wages are sometimes kept down, in the face of economic forces tending to raise them, by what is, in effect, a species of monopolistic action on the part of a group of local farmers. For the rate of pay to agricultural labourers has become a matter of tradition and custom, and though conditions are now quite different from what they were when this tradition crystallized, nobody ventures to take the initiative in breaking away from it.

"The farmer," says the *Report of the Land Inquiry Committee*, "has been accustomed to pay a certain wage and to feel that the conditions of farming would not allow him to go beyond that limit, and we have found instances of his going without labour for a time rather than grant a rise in wages. . . . His line of defence is greatly strengthened by the solidarity of interests among farmers. If an employer in the town wishes to make a substantial advance in wages, he can afford to be indifferent to the resentment if any, among other employers. But the personal bonds between farmers are extremely close, and the best employer of labour is sensitive to social ostracism. From many parts of the country we have heard of cases where farmers would willingly raise wages but for fear of

local opinion. Thus, a farmer told us that, to avoid the appearance of paying higher wages than the farmers round him, he had actually resorted to subterfuge and adopted a bonus method of payment."[1]

Now, in so far as the level of wages in particular districts relatively to other districts, or of agriculture as a whole relatively to other industries, is made unfairly low by this type of cause, the enforcement from without of a higher rate is wholly desirable. Under present arrangements some groups of farmers are unconsciously playing the part of a ring of monopolists, paying their workpeople less than the real value of their work, and holding away from agriculture labour that might, with great advantage to the whole community, be employed there. The enforcement of a minimum wage in excess of current local rates, to break down custom, inertia and tacit combination, would not only increase the wages of individual labourers but would also increase, in a way advantageous to the economic interests of the community, at once the number of persons employed in agriculture and the aggregate amount of agricultural production. To set against these advantages there would be no compensating disadvantage.

It would, however, be a mistake to suppose that unfair wage-rates in agriculture, when they prevail, are always due to this class of cause. They may equally well be due to the fact that, for the time being, the supply of agricultural labour in the districts concerned is excessive relatively to the demand. An excessive supply tends naturally to prevail in any occupation in which the demand for labour is falling, whether on account of mechanical inventions or increasing foreign competition, or for any other reason: and, at all events until recently, the demand for labour in agriculture was certainly falling in the United Kingdom as a whole, and was probably falling more markedly in some parts of it than in others. In so far as "unfair" wage-rates prevail from this cause, they tend gradually to be corrected by an outflow of labour from agricultural occupations in all districts, and especially in those districts of more than ordinarily depressed demand. This outflow is economically advantageous, because it transfers men to occupations where their work is more productive; and it is directly promoted by the existence of the abnormally low wage-rates of depressed districts. To force the wage-rate paid in these districts

[1] *Report of the Land Inquiry Committee*, p. 40.

up to the level of that paid to workpeople of similar efficiency in the generality of districts and in other occupations would very probably have the effect of calling back to agriculture—not, be it noted, to *employment in agriculture*, because the amount of employment there would actually be diminished by the higher rate—men whom it should be our object to encourage as speedily as possible to abandon agricultural occupations, possibly altogether, and certainly in the more depressed districts. As a remedy, therefore, for the disease we have diagnosed in this paragraph, minimum wage legislation might well turn out to be the reverse of desirable.

What has been said leads to the following practical conclusions. The establishment of Wages Boards instructed to combat "unfair" wages in the several agricultural districts is likely to lead to good or bad results, according to the manner in which these Boards interpret their functions. First, if they can enforce throughout each of the several districts—the districts being assumed to be fairly small—a wage-rate for men of ordinary efficiency equal to that predominantly paid by reputable employers in the district, they will do unalloyed good. Secondly, if they can force up the predominant rate paid in each district to the rate which farmers would tend to offer if they were not held back by tradition and tacit combination, they will again do unalloyed good. But, thirdly, if in any district the natural economic wage of agricultural labour, when the influence of tradition and combination has been eliminated, is less than the rate paid to similar labour elsewhere because the supply of agricultural labour is unduly large, the element of unfairness which then subsists cannot with advantage be attacked by Wages Boards. External interference with the wage-rate would be more likely to hinder than to assist the healing influence of normal economic forces.

VI

There remains for discussion the efficacy of a legal system of minimum wages as a remedy for the evil circumstance that the earnings of able-bodied agricultural labourers are often less than a "living wage." Throughout the discussion of this matter one point must be clearly borne in mind. In an earlier section reasons have been advanced for believing that, as things are at present, a

considerable number of agricultural labourers are paid less than a living wage. Nothing that was said, however, enables us to conclude that this state of things would continue to prevail, if the policy of attacking unfair wages, which was discussed in the last section, was effectively carried through. Actual wages in agriculture are often less than living wages, but fair wages in agriculture might not—as regards able-bodied men, for whom alone a "living minimum" is advocated—be open to this charge. It follows that the discussion we have now to undertake must be largely hypothetical in character. We must say, "Suppose that fair wages are everywhere established, and suppose that, in some districts, these wages, in respect of able-bodied labourers of the class and grade at work there, turn out to be less than a living wage; is it desirable, in these circumstances, that the machinery of Wages Boards should be employed to force the rate of wage, which has already, *ex hypothesi*, attained to the ideal of fairness, towards the different and more elevated ideal of a 'living minimum'?" This problem, and not something simpler and more concrete, is the issue now before us. In the discussion of it so many complications are encountered that we shall be well advised to advance by stages. In the first instance, therefore, the possibility that enhanced wages may react to make the labourers more efficient will be ignored. It will be assumed that no such reactions occur, and it will be asked, on that assumption, what the effect of minimum-wage legislation of the kind contemplated is likely to be.

Let us begin by supposing that, for the class of able-bodied agricultural labourers in most districts, a wage that is fair will also prove to be a living wage, but that in certain districts the so-called able-bodied men are so inefficient that a fair wage to them is not a living wage. If employers are forbidden to pay these men less than a living wage, they will tend to substitute for them other workpeople of a somewhat higher grade, and the main effect produced will be simply a redistribution of workpeople. Thus, when the wages of dock labourers were raised after the great strike of 1889, the dock companies met the new situation, in part, by importing strong men from the country, whose labour was better worth the "tanner" they were obliged to pay. The workmen who were turned out to make way for them may well have gone elsewhere for

wages more or less equivalent to what they were receiving before. It is very important that the possibility of this sort of reaction should not be forgotten; for, unless it is borne in mind, we shall be in danger of greatly exaggerating the real effect on wages as a whole that legislative interference with the rates paid in particular districts or in occupations of limited range is capable of bringing about.

Next, suppose that in order to secure what is considered a reasonable living wage to agriculture, it is found necessary to fix a legal minimum in excess of what would be fair, not merely in a few districts where able-bodied agricultural labours are exceptionally inefficient, but over a large part of the country. If this were done the situation could not be met by a mere redistribution of workpeople. The presumption is that a substantial reduction in the amount of labour employed in British agriculture would be brought about. For the products of the farmer in England are exposed to competition from enormous foreign sources of supply. Anything, therefore, that increases the cost of production here, even to a small extent, must cause the native supply to shrink before the foreign supply. As a result, grass land would take the place of arable land; and casual and intermittent engagements would take the place of engagements that were in effect, if not in name, more or less permanent. Moreover, the reduction of employment in agriculture would not be likely to be balanced by an increase of employment elsewhere. For, since people look principally to the rate of wages in judging the comparative attractiveness of different occupations, the increase of agricultural wage-rates brought about by law would tend to make more people than before seek employment there. With diminished posts there would be more candidates, and a number of people who, apart from the new wage policy in agriculture, would somehow have been engaged in productive occupations, would be reduced to idleness, to the injury alike of themselves and of the general productivity of the nation.

It may be suggested that these results could be obviated by coupling the introduction of legislation to enforce a living wage with provisions for throwing the costs involved on landlords' rents. Thus, the Land Inquiry Committee write:

"It should be laid down, as an essential feature of any legislation dealing

with the minimum wage, that a farmer who is able to prove that the rise in wages has put upon him an increased burden, should have the right to apply to some judicial body for a readjustment of his rent.[1]

This plan would provide finance for the new law by the imposition of what is in effect a special tax upon landlords. Whatever may be thought of such an arrangement from the standpoint of equity in taxation, it would evidently remove from farmers the pressure they would otherwise feel to reduce the number of their labourers. The law would compel extra wages to be paid to these labourers, but it would compel a third party to provide the money, thus leaving the farmers in the same position as before. This, however, does not mean that no waste of labour would result. The offer of a rate of wages in excess of the fair rate relatively to other occupations would still tempt more workpeople into agriculture than, at that rate, could find employment there; and we should still see men, who otherwise would have been occupied elsewhere, forced there into unemployment or partial employment, to the injury both of themselves and of national productivity. It is true that, by the adoption of special methods in the engagement of agricultural workers, this result might be, at least in part, avoided. But it would be very rash to bank on this.

What has been said so far is not, however, final. For the preceding discussion has ignored the possibility that enhanced wages may react favourably upon the efficiency of the labourers who receive them. Before any final estimate of the effect of the legal enforcement of a living wage can be framed, this possibility and its bearing upon our general argument must be considered. The problem thus presented is not, however, an easy one. First, there are difficulties in the way of determining the precise relation, if any, which subsists between better pay and better, or more abundant, work. Attempts to draw inferences upon this subject from experience are often subject to fallacy. The fact, for example, that workpeople in high-wage districts are, in general, more efficient than workpeople in low-wage districts, does not prove that high wages cause high efficiency; for there is available the alternative explanation that high efficiency causes high wages. Nor does the fact that workpeople, who have moved from low-wage to high-wage districts, are soon found to be earning the wages

[1] *Report of the Land Inquiry Committee*, p. 62.

proper to these latter districts prove this; for the people who are likely to undertake such journeys are just those who feel themselves already more efficient and worth a larger wage than their neighbours. Fortunately, however, other considerations are available. It is a matter of common knowledge that better nourishment increases a man's power to work, and it is probable that an increased wage will, at all events in part, be expended in procuring better nourishment. Further, the establishment anywhere of a legal wage in excess of that previously ruling, since it threatens unemployment to those not worth this wage, naturally increases the desire to work on the part of men on the borderline. In this way it stimulates the laggards to exert themselves more energetically—a change for which, in districts where a tradition of slack work prevails, there may sometimes be considerable scope. These considerations warrant the conclusion that improved wages will lead, in some measure, to improved efficiency. There remains, however, a second and different kind of difficulty. Granted that those labourers, for whom the enhanced wage-rate means also enhanced earnings, are rendered more efficient, must it not equally happen that those other labourers, for whom the enhanced rate means diminished employment, will be rendered less efficient? I can see no satisfactory way of balancing this element of evil against the accompanying element of good. In view of this result it would seem that the unfavourable judgment of the probable effects of a legal living wage, which was reached when the possibility of reactions upon efficiency was ignored, should be held with less assurance when that possibility is taken into account. No considerations, however, have been advanced which can cause that unfavourable judgment to be reversed. The legal enforcement of a living wage in agriculture, in excess of what for most districts would be the fair wage, is, on such evidence as we possess, more likely to injure than to benefit agricultural labour as a whole.

Even this result, however, is not decisive for practice. To the claim for a living wage that is set out by the Land Inquiry Committee it is, indeed, fatal; for this claim rests wholly on the thesis that the establishment of such a wage would directly benefit the labourers in whose behalf it is demanded. It is possible, however, to advocate the legal establishment of a living

wage (in excess of the fair wage) from quite another standpoint. It is held by some thinkers that all so-called able-bodied work-people, who are too inefficient to be worth such a wage, ought to be removed from private industry and handed over to be cared for and, when that is possible, to be trained by the public authorities to greater industrial competence. The legal prohibition of any wage-payment at less than the living rate, if it were coupled with a law designed to abolish casual methods of hiring labour, would provide an effective means of segregating and revealing these exceptionally inefficient able-bodied workpeople. This is quite a different idea from that underlying the Report of the Land Inquiry Committee. The Committee wishes to establish a legal living wage, in order that workpeople of low quality may be enabled to earn more than they are earning at present. The thinkers, whose attitude I am contrasting with theirs, wish to establish it, in order that such workpeople may be prevented, for the time, from earning anything at all. For this policy, taken as a whole, a fairly strong case can be made out. The legal living wage, however, is only embraced in it as one item of a closely articulated programme, and its enactment, unassociated with the other items, would not fulfil the purpose which the advocates of that programme have in view.

VI

TRADE BOARDS AND THE CAVE COMMITTEE[1]

The Cave Committee on the working and effects of the Trade Boards Act was necessarily confined to a somewhat narrow reference. The problem of Trade Boards cannot, however, be treated fully by itself. It is a part of a much larger problem of international range, namely, Government interference with wage-rates generally. The narrow issues that the Committee had to study can, I think, be illuminated if they are put in a wider setting.

In modern times, until some five-and-twenty years ago, it was the general policy of governments to leave wages severely alone. At the present time, however, over nearly the whole of the English-speaking world that policy has been abandoned. It has been abandoned under the influence of two dominant motives. On the one side, the inconvenience and loss caused to the public by stoppages of work in important industries has driven governments to seek some means of averting these stoppages. On the other side, humanitarian sentiment has been shocked at the conditions prevailing in what have been somewhat ambiguously called "sweated industries," and governments have intervened with intent to prevent sweating. It is interesting to observe how these two motives have worked themselves out in practice. In origin they are entirely distinct, but in their concrete manifestations they have moved more and more closely together.

The desire to obviate stoppages of work has often translated itself into forms that do not involve any direct interference with wage-rates. Thus, Government Departments offer their services

[1] From the *Economic Journal*, September, 1922.

in mediation, encourage the formation of voluntary Joint Boards of employers and employed to negotiate wages questions, require the taking of a second ballot before a strike is declared, forbid, under penalties, the declaration of a strike or lock-out before opportunity has been afforded to an impartial tribunal to investigate disputes and recommend terms of settlement, and so on. In none of these arrangements is there any direct determination of wage-rates by public authority. But in some countries these arrangements have not been deemed sufficient, and it has been desired, either generally or in industries of exceptional importance, actually to forbid stoppages of work by law. When this stage is reached, and when employers and employed are compelled to carry on though they cannot agree upon terms, it becomes necessary for the public authority to add an order fixing these terms to the order to carry on. If it did not do this, the order to carry on would obviously lead to chaos. In this way the desire to prevent stoppages of work has become embodied in systems of compulsory arbitration, the best known of these being that of New Zealand, under which the public authority, through officially controlled Boards or Court, directly determines what the wage-rates are to be.

In like manner, the desire to prevent sweating has evolved forms of State action that do not carry with them any direct impediment to stoppages of work. Wages Boards or Trade Boards are set up, and through them the State announces certain minimum standards of wages, just as under the Factory Acts it announces certain minimum standards of sanitation and safety, below which employers must not, on pain of punishment, descend. This does, of course, indirectly rule out one possible form of stoppage of work, namely a lock-out by employers designed to compel the acceptance of wages below these minimum standards. But directly nothing is done against any class of stoppage, and neither directly nor indirectly is anything done against that class of stoppage which originates in a demand by the workpeople for wage-rates higher than the legal minimum. Just, however, as we have seen that the desire to prevent stoppages has sometimes pushed forward into the territory of wage settlements, so sometimes the desire to prevent sweating has pushed forward into the territory of legal sanctions against stoppages. Thus in Victoria, under an

amending Act of 1907, it was provided that, if workpeople in an industry bound by the determination of a Wages Board undertake a strike, the Government may suspend the whole or part of the determination for the period of a year. This provision in effect imposes a penalty on strikes, because, generally speaking, the suspension of a determination will involve the temporary abrogation of some obligations upon employers that are of advantage to the workpeople. In Tasmania, where the Victorian system has been adopted, the Wages Board Act forbids, under severe penalties, a lock-out or strike on account of any matter in respect to which a Board has made a determination.

This tendency towards an assimilation between the practical manifestations of the desire to prevent industrial stoppages and the desire to prevent sweating has been associated with, and is, no doubt, in part due to, a widening in the scope of these desires themselves. The desire to prevent industrial stoppages is naturally most potent in regard to industries of fundamental social importance. Thus, the Canadian Industrial Disputes Investigation Act is limited to industries of this class, and the New South Wales Industrial Arbitration Act of 1918 only makes unconditionally illegal strikes on the part of employees of Central or Local Government authorities. It is not, however, possible to distinguish industries into two rigidly divided groups, one of which is socially important while the other is not. The distinction among them can only be one of degree. Hence, it is natural to find that authoritative action to prevent stoppages of work is not everywhere confined to certain selected industries. In South Africa and in Colorado the principle of the Canadian Act has been extended over a wider field, and in New Zealand, as is well known, the compulsory arbitration law applies to all industries, except those in which the workers have refused to be registered under the Industrial Conciliation and Arbitration Acts. In the same way the desire to prevent sweating, which manifested itself first in the formation of Wages Boards in selected ill-organized and ill-paid occupations, has, in Victoria, expanded into a desire to prevent unfairly low wages in a more general sense. The number of occupations covered by Wages Boards in that country has grown, till at the present time Boards have been appointed in practically all of them. We may conclude,

therefore, that, though the root ideas underlying compulsory arbitration systems and the Wages Board system respectively are quite distinct, and are, moreover, in their purest forms, relevant to different classes of occupation—for it so happens that in most countries workpeople in the industries of greatest social importance are not ill-organized or low-paid—yet the legal arrangements evolved out of them have everywhere much in common, and sometimes, as in Tasmania, become indistinguishable.

In order that this conclusion may be clear-cut, it is desirable to remove a rather common confusion of ideas. It is sometimes supposed that the Compulsory Arbitration method and the Trade Board method differ from one another fundamentally, in that under the former it is a *standard wage*, and under the latter a *minimum wage*, that is determined. In one sense this is true. The wage determined by a compulsory arbitration court is an absolute wage, in that it is illegal either for employers to fight for less or for workpeople to fight for more; and the wage determined by a Trade Board, on the English plan, though not on the Tasmanian plan, is a minimum wage, in that it is illegal for employers to fight for less but not illegal for workpeople to fight for more. Under compulsory arbitration the awarded wage and nothing else is the lawful wage; under Trade Boards (on the English model) the awarded *or any higher wage* is a lawful wage. This, however, is not the sense in which the relation between the standard wage of compulsory arbitration and the minimum wage of Trade Boards is commonly understood. Many people think that, if in two exactly similar industries a Court was called upon to fix a standard wage and a Trade Board to fix a minimum wage for exactly similar classes of workpeople, the minimum wage fixed by the Board would be substantially less than the standard wage fixed by the Court. This is not so. In respect of any given category of workpeople, Court or Board alike would aim at what they consider to be the *proper* wage for *ordinary* workers in that category. The so-called minimum wages of Trade Boards are not intended, in respect of any given category of workpeople, to be fixed at a level substantially below what is ordinarily paid, thus serving merely as a kind of safeguard against eccentric employers. Trade Boards, no less than Arbitration Courts, aim at determining the rates of wages that will actually be paid in

their industries. When a piece-rate is announced by either sort of body, this is intended to be the piece-rate payable to all employees. When a time-rate is fixed, Court and Board alike are settling the wage appropriate to a worker of representative strength and skill. For both of them the rate is a *minimum*, in the sense that workers of strength and skill greater than the ordinary may expect better pay; and by both provision is made to allow workers whose strength and skill is abnormally small to be paid less than the "minimum" rate. In this matter, therefore, the two systems are upon all fours. Under both of them the task of the public authority is to announce, not an ineffective minimum, but the rate of wage it deems *proper* to a defined grade of worker in the industry it is reviewing.

We are thus led on to inquire what precisely legislators, when providing machinery for Government interference with wages, have conceived a *proper* rate to mean. It might mean either what we may call an economic wage, namely the wage which, in the conditions of the trade under review, economic forces tend to bring about if employers can be prevented from taking advantage of the bargaining weakness of some or all of their workpeople and paying them less than they are worth; or it might mean a "living wage," interpreted on the basis of some opinion as to what is reasonably necessary for a civilized man or woman with a normal family. It is obvious that these two sorts of *proper* wage, translated into terms of money, may, on occasions, mean very different things. Unless, therefore, legislatures provide guidance for the wage-regulating bodies they set up, there can hardly fail to be uncertainty and confusion. Consequently, there have been introduced into the laws of several of the Australasian colonies governing words of greater or less precision. In the Victorian law of 1903 it was provided that determinations should be based in each industry on the rate of wage actually paid by "reputable employers" to workers of average capacity in that industry. This rule, which in effect signified that the proper wage was to be taken to mean an "economic wage," was, however, repealed in 1907. In the 1912 Act, Section 175 laid down:

"Where any determination made by a special board either before or after the commencement of this Act, is being dealt with by the Court, such Court shall consider whether the determination appealed against

has had or may have the effect of prejudicing the progress, maintenance of, or scope of employment, in the trade or industry affected by any such price or rate; and, if of opinion that it has had or may have such effect, the Court shall make such alterations as, in its opinion, may be necessary to remove or prevent such effect, and at the same time to secure a living wage to the employees in such trade or industry who are affected by such determination."

This suggests that the proper wage is to mean *both* an economic wage *and* a living wage, and the possibility of conflict between these two ideals is ignored. In the Queensland Act of 1916

"the wage awarded must be not less than sufficient to maintain a well-conducted employee of average health, strength, and competence, and his wife and a family of three children in a fair and average standard of comfort, having regard to the conditions of living prevailing among employees in the calling."[1]

The first part of this provision suggests that the living wage is to be adopted as the sole standard, but the last part belies this suggestion, because, of course, the conditions of living prevailing among employees in the calling depend on their customary earnings, and, therefore, are related to the economic wage of the calling. In other States, however, a more definite position is taken up, and it is laid down, in effect, that, in making their awards, Courts or Boards shall regard the living wage as a minimum below which they must in no event go. Thus, the South Australian Industrial Arbitration Act of 1912 lays down:

"The board shall not have power to order or provide wages which do not secure to the employees affected a living wage. Living wage means a sum sufficient for the normal and reasonable needs of the average employee living in the locality where the work under consideration is done, or is being done. In the Western Australian Act it is provided that no minimum rate of wages or other remuneration shall be prescribed which is not sufficient to enable the average worker to whom it applies to live in reasonable comfort, having regard to any domestic obligations to which such average workman would be ordinarily subject."[2]

Finally, in the New South Wales Act of 1918 these general rules are given a statistical interpretation. The Board of Trade is ordered, after public inquiry into the cost of living, to declare from year to year what shall be the living wages respectively of

[1] Gilchrist, *Conciliation and Arbitration*, p. 104.
[2] Bulletin of the U.S. Bureau of Labour Statistics, No. 167, pp. 165–7.

male and of female adult employees (other than those who are abnormally inefficient) in the State or any defined area thereof, and no industrial agreement shall be entered into, and no award made for wages lower than such living wages. What it all comes to is that, in the various colonies whose laws I have been citing, as between the *living* wage and the *economic* wage, that one of the two which in any particular industry is higher must be taken, by Courts or Boards determining the pay of ordinary workers, to be the *proper* wage.

The law cited from New South Wales brings into view yet another possible arrangement, namely the establishment, either alongside of, or instead of, the special determinations made by Wages Boards, of a general nationally determined minimum wage. The New South Wales rule involves this. It does not merely give an instruction to the Boards and Court before which particular wage issues may come: it applies also to settlements made by agreement of the parties. It is true, of course, that the Legislature has not itself translated its living wage into terms of actual money. That task is left to the Board of Trade, and is to be undertaken every year on the basis of the cost of living. This, however, is a matter of detail, not of principle—a recognition of the fact that prices vary, and that it is more convenient to take account of these variations by administrative regulations than by legislative amendments. It should not prevent us from regarding the New South Wales law as one that directly fixes national minimum wages at a living level—a level, it should be borne in mind, which may be different for men from what it is for women workers. These national minimum wages do not, of course, mean wages below which nobody may be hired to industry. The intention underlying them is that ordinary workers of the lowest grade who are of sound mind and body shall not be engaged to work in any industry for a less sum than common opinion regards as capable of yielding a reasonable subsistence: and special provision is made, as under the more detailed rules laid down by Wages Boards, for allowing abnormally inefficient workers to be engaged at a lower rate. In the State of Washington there is, for women workers, a State minimum wage law of the same type as the New South Wales law.

This general background should enable us to envisage more

clearly the nature of the problem which the Cave Committee had to consider, and to estimate better the value of their work. In view of the strong opposition that prevails in this country to compulsory arbitration or prohibitions against strikes, they did not need to contemplate the development of our Trade Board system on the lines of the Tasmanian law. They were, however, called upon to examine actual and proposed extensions of our system to cover workpeople belonging to different categories from those at first included under it. In the Act of 1909 it was laid down, as a condition for establishing a Trade Board in any industry or branch of industry, that the rate of wage prevailing there "is exceptionally low as compared with that in other employments." In the Act of 1918 this condition was abrogated, and there was substituted for it a new condition, namely that the Minister of Labour is

"of opinion that no adequate machinery exists for the effective regulation of wages throughout the trade, and that, accordingly, having regard to the rates of wages prevailing in the trade or any part of the trade, it is expedient that the principal Act should apply to the trade."

The passing of the new Act was followed by a large increase in the number of Boards; and, furthermore, Boards, instead of fixing rates, as had hitherto been the custom, merely for the lowest grade of ordinary workers in the trade, leaving skilled and semi-skilled workers unaffected, took to fixing different rates for different classes of workers, even on some occasions for foremen earning over £4 10*s.* a week.[1] This was a large step forward from the original intention of the 1909 Act. While most people were willing to forbid employers, under penalty, to force down a poor unskilled worker's wage below, say, 30*s.* a week, without putting any corresponding prohibition on the workman's trying to force the wage up, there was strong opposition to a one-sided arrangement of this sort as regards high-waged skilled men. The existing state of things was anomalous: it was necessary either to go forward on Tasmanian lines, and make the Trade Boards' determinations enforceable against workpeople as well as against employers, or to restrict more narrowly the scope of the Boards' activities. The Cave Committee favour the second alternative.

[1] Cf. Report of the Cave Committee, p. 11.

"It appears to us," they write, "that, while the coercive powers of the State, and particularly of the criminal law, may properly be used to prevent the unfair oppression of individuals and the injury to the national health that results from the 'sweating' of workers, the use of those coercive powers should be limited to that purpose, and that any further regulation of wages should be left, so far as possible, to the processes of negotiation and collective bargaining. It is one thing to say that an employer shall not pay to his adult worker a sum insufficient for his or her maintenance under the conditions of the time, be the sum 35*s*., 40*s*., or 50*s*. per week; it is quite another thing to provide that he shall not pay to a skilled worker of a particular class less than 70*s*., 80*s*., or 90*s*., even though the worker is prepared to work at a lower wage, and that, if he does so, he shall be liable to fine or imprisonment. It may be desirable that the higher wage should be paid, and it may not be unreasonable for a trade organization to insist on that wage being paid and to enforce its decision by economic means; but to compel the payment by the threat of criminal prosecution appears to us to be an oppressive use of the powers of the State."[1]

The Committee accordingly recommend that the Minister of Labour should not be empowered to apply the Act to a trade unless both an unduly low wage prevails in the trade or some branch of it and

"there is lack of such organisation among the workers as is required for the effective regulation of wages in the trade."[2]

They recommend, further, that the Boards should only be empowered to fix legally binding minimum rates in respect of ordinary workers of the lowest grade in the trades covered by them; rates for other grades of workers not being determinable unless three-fourths of the representatives of each side agree upon a recommendation and invite the Minister to enforce it. It will thus be seen that the Committee are desirous of lopping off the accretions that have grown upon the original Trade Boards Act of 1909, and of not extending direct legal interference with wages beyond classes of workpeople who are, in popular language, sweated, or liable to be sweated.

Let us now turn to the principles on which determinations are to be based. The Committee agree with the general practice of allowing subnormal workers to be paid a lower rate per day (not, of course, a lower piece-rate) than that determined for normal

[1] Report, pp. 26–7. [2] *Ibid.*, p. 28.

workers. They point out that at present, under the English law, permits may be granted only for persons "affected by any infirmity or physical injury," and they recommend that they should also be obtainable in respect of "the 'slow worker,'" i.e.

"the person who, while not subject to any infirmity or physical injury, is yet incapable, owing to some constitutional defect or to some other cause, of earning the minimum rate fixed for the ordinary worker of his class."[1]

This, however, is comparatively, though not absolutely, a small matter. Much more vital is the question what principles Trade Boards should follow in determining the wages to be paid to ordinary workers; or in other words, what meaning they should assign to the notion *proper* wage. In neither the 1909 Act nor the 1918 Act did Parliament give any guidance on this important matter. The natural result followed. "Some Boards," the Cave Committee report,

"have had regard only to the cost of living, while others have taken into account the value of the work done and the charge that the trade can bear. In one case we were informed that the minimum was taken to be the lowest wage payable to the least skilled worker in the cheapest living area covered by the rate; while in another it was defined as a wage sufficient to provide a young woman of eighteen with means sufficient to enable her to maintain herself without assistance, and to enable a man of twenty-one to contemplate marriage. Partly as a consequence of this diversity of interpretation, wide differences are found in the rates fixed."[2]

The issue is thus plainly stated, and we naturally look to the Committee to offer a solution. We are, however, disappointed. The Boards, we are told, should aim

"at giving protection to the workers in each trade by securing to them at least a wage which approximates to the subsistence level in the place in which they live and which the trade can bear."[3]

This is mere shirking, on the model of the Victorian Act of 1912. The last six words destroy those which go before and leave an unmeaning chaos.

On the subject of a national minimum wage law, the Committee are more definite. They discuss the enactment of such a law (from

[1] Report, p. 34. [2] *Ibid.*, p. 26. [3] *Ibid.*, p. 28.

which abnormally inefficient workers might obtain exemption) as a substitute for the Trade Boards. It seems fairly clear that any national minimum wage would have to be put at a level appropriate to the lowest grade of ordinary worker (though there might, of course, be different minima for men and women) in the lowest grade industry. Thus, it would fail to protect from exploitation anyone of a grade better than this, and so, though nominally of wider reach, would really be of narrower reach even than the modest system of Trade Boards contemplated by the 1909 Acts. In this connection there is also a serious technical difficulty in the definition of ordinary workers. It may happen that certain occupations are predominantly manned by an exceptionally slow type of unskilled labourer; so that, say, the unskilled man one-tenth of the way down the scale of capacity in one occupation corresponds to the unskilled man nine-tenths of the way down in another. Under a national minimum wage we should either have to make our minimum appropriate to workers who, from a general point of view, are not ordinary, but "slow" workers, or to exempt from it practically all the unskilled workers in certain occupations. This awkwardness is avoided under the Trade Board system. Again, as the Cave Committee point out,

> "in some industries, the home-worker cannot be adequately protected except by fixing minimum piece-wages, and it is clear that such rates cannot be fixed on a national basis for all trades."[1]

Yet again, a law enacting a national minimum wage, though, as in New South Wales, it could make provision for variations in the cost of living from time to time, could not, as effectively as a system of Trade Boards, make provision for variations from place to place. For reasons such as these the Committee are opposed to the enactment of a national minimum wage as a substitute for Trade Boards. Its enactment as an addition to them they do not discuss. Granted, however, that Boards are installed over a wide enough field and operate satisfactorily, there seems little to be gained by creating a new form of machinery. It may be inferred from their silence that the Committee take this view.

[1] Report, p. 25.

VII

PRICES AND WAGES FROM 1896–1914[1]

Writing in 1911 Professor Ashley summarized the recent changes in gold production as follows:

> "The output began to increase from 1890 onward by a rate of from two to four million pounds sterling a year; in 1897 the increase on the preceding year leapt up to seven millions, and in 1898 to ten millions more. It was checked by the South African War; yet in 1901–2 it remained well above what it had been in 1897. In 1903 its upward march was resumed; and in six years it reached its present figure of well over ninety millions annually, or between three and four times as much as the annual output during the forty years 1850–1890. . . . There has been added to the world's stock of gold during the last fifteen years, a quantity considerably greater than the total amount of coin and bullion previously existing in Europe and America and the Colonies; a quantity more than half as much as the world's total previous stock in all forms."[2]

As a result,

> "we are probably well within the mark in regarding a rise of 10 or 12 per cent. in the general cost of living as the effect—to the present [then] time of the new gold supplies."[3]

Accompanying this marked expansion in the gold supply and associated rise in the general level of prices there was a marked alteration in the trend of real wages. Whereas during the twenty years before 1896 the trend of general prices had been downwards and the rate of real wages had been rising, the reversal of the price trend in the later nineties was accompanied by a check to the upward movement of real wages. Indeed, apart from the shifting of workpeople from lower paid to higher paid occupations, the rate of real wages actually declined between the later nineties and the

[1] From the *Economic Journal*, June, 1923. [2] *Gold and Prices*, p. 17. [3] *Ibid.*

outbreak of the Great War. This colligation of events suggests *prima facie* that the new gold, through the influence it exerted on the general level of prices, *caused* the injury to the rate of real wages which accompanied its advent. The purpose of the following pages is to investigate that thesis.

A certain scepticism is aroused on this matter so soon as we extend our historical perspective. From the end of the Napoleonic wars till 1914 English wholesale prices show four distinct trends, as distinguished from less fundamental cyclical movements. The facts, as recorded in Jevons' and Sauerbeck's figures, are brought out very clearly in the following table:

Year.	Index.	Percentage change.
1821–6	154	
1846–50	116	− 25%
1871–5	138	+ 20%
1894–8	82	− 40%
1906–10	102	+ 25%

Over the first trend period, from the close of the Napoleonic wars till about 1850, when prices were falling markedly, the wage-earning classes were very badly off, and the rate of real wages was, at best, rising slowly. Over the second trend period, however, from the early fifties till the early seventies, when prices were rising, the rate of real wages was also rising fast. Thus the association between a falling price trend and a gain to real wages, and a rising price trend and a loss to real wages, which appears during the two contrasted price trends subsequent to 1870, is balanced by a contrary association during the two parallel contrasted periods prior to that date. This circumstance makes it plain that our problem is not an entirely simple one and that some caution in approaching it is necessary.

Let us begin then by disentangling carefully several distinct things for which the advent of new gold *might* be responsible. Plainly, a substantial influx of it must, under a gold standard system, raise the general level of prices above *what it would have been* if everything else had remained the same and the influx had not taken place. But it will not raise this level *above what it was before*, unless—banking arrangements and so on being given—the increase in the gold fund is more than proportionate to the

contemporaneous increase in production. Therefore, when it is said that, over any period, an influx of new gold has raised prices, what is meant is that an *excess* of new gold above what is required to keep pace with the production of commodities has raised prices. Plainly, however, an excess of this sort might result either from an expansion in the gold supply, or from a contraction in production, or from a combination of both these things. This fact reveals an important ambiguity. When there is an excess of gold supply in the above sense, and, therefore, a rise in the general level of prices, several distinct factors have been in play, all of which may conceivably exercise a causal influence on the real rate of wages. First, there is any absolute change in the gold supply that may have taken place independently of the circumstances of commodity production here; secondly, there is any absolute change in commodity production here that may have taken place independently of the circumstances of the gold supply; thirdly, there is any change in the gold supply that may have taken place *in consequence of* a change in commodity production here; and, fourthly, any change in commodity production here that may have taken place *in consequence of* a change in the gold supply. Finally, there is any change that may have taken place, as the combined result of any or all of these factors, in the level of general prices. It is plain that an upward movement of commodity production here, whether due to non-monetary causes, such as inventions or capital accumulation, or to the indirect influence of the increased demand for our commodities in terms of foreign gold, is likely to react favourably on the rate of real wages, and a downward movement unfavourably, There is no apparent reason why an increase in the gold fund. independently of any effects it may have on production or on prices, should affect the rate of real wages at all. A change in the level of general prices, *however caused,* may, it would seem *prima facie*, affect this rate in so far as economic friction causes the money rate of wages to lag behind price movements. Thus, if production expands and prices fall, the rate of real wages should rise more than it would have done if production had expanded equally but prices had not fallen. It is essential to our purpose that these distinctions should be kept clearly in mind.

Professor Bowley has shown that between 1880 and 1898 the average of all incomes, wage incomes and non-wage incomes

together, increased in money some 15 per cent.; between 1898 and 1910 some 20 per cent.; while, when allowance is made for price changes,

> "the average real income increased much more than 16 per cent. in the first period and much less than 20 per cent. (if indeed it increased at all) in the second period."[1]

More generally, from the early seventies to the early nineties the country's aggregate income of goods and services was expanding strongly; and after that the expansion greatly slowed down. It is plain that this change would exercise a causal influence in checking the growth in real wages that had previously been taking place. Unless, therefore, it was itself in substantial measure an effect of the increased gold output, or of the price movements associated with it, we must conclude that at least a part of the injury to real wages was not due either directly or indirectly to these things.

Now, common opinion holds that, so far from new gold supplies and an upward price movement consequent upon them checking productivity, they have a strong tendency to expand it. The cheapening of gold, like the cheapening of any other commodity imported from abroad (the demand for which has an elasticity greater than unity), should stimulate British export industries. Moreover, when prices rise, this fact, apart altogether from the cause of it, lessens the real payments that business men have to make on capital borrowed at fixed money interest, and thus improves their position, increases their confidence and stimulates them to increased activity. It must, indeed, be admitted that these considerations do not suffice to prove that new gold and consequent rising prices will actually increase productivity. As Dr. Marshall has shown, there are important considerations on the other side. The enhanced confidence that business men feel in times of rising prices is likely to increase the proportion of the nation's resources that is invested in worthless undertakings. Furthermore, the fact that business men are helped by an artificial reduction in the real interest which they have to pay on their loans means that the pressure upon them to exert themselves to the utmost in order to maintain their position is diminished. Lastly, the conditions of the struggle for survival being thus

[1] *The Change in the Distribution of the National Income*, p. 19.

softened, weak men, who might otherwise have been forced out of business and compelled to sell their concerns to younger and more strenuous rivals, are enabled to maintain their places somewhat longer. In these ways the average level of energy and capacity in the ranks of the captains of industry is reduced below the level at which, apart from the upward price movement, it would probably have stood. These considerations make the common view that rising prices brought about by monetary causes are beneficial to production at least doubtful. It is still true that

> "One wants very much stronger statistical evidence than one yet has to prove that a fall of prices diminishes perceptibly, and in the long run, the total productiveness of industry." [1]

Plainly, however, we are not warranted, on the strength of this analysis, in deciding that the advent of new gold and rising prices definitely damage productivity. So far as our present knowledge goes, the main part at all events of the set-back that industry experienced in the period following the late nineties must be set down to causes independent of the gold movement—to such things as the absorption of capital in war and the close of the era of great transport improvements. Hence, so far as the set-back to the rate of real wages results from the set-back to production, it was not due in any important degree to the influence of the new gold or the rise of prices.

Professor Bowley has also exhibited a second significant fact. In the fifteen or twenty years following 1880 the proportion of the national income (including income from abroad) that went to "property" fell from about 37½ per cent. to 36 per cent. or 35 per cent. of the whole, but by 1913 it had risen once more to 37½ per cent. This might, of course, mean merely that the aggregate amount of property created through new savings increased more largely in the second period than in the first. Had this been so, however, the real rate of interest in the second period ought to have declined. In fact the real rate of interest, as measured in the yield of consols, appears to have risen slightly, and, as measured in the yield of other fixed interest stocks, decidedly. On the whole it appears, though the statistical data are very imperfect, that, in the period preceding the middle nineties, the rate of

[1] Marshall, *Gold and Silver Commission*, Q. 9816.

return to capital was falling a little relatively to the rate of return to effort, including manual labour, and that, in the following period, this tendency was reversed. Was the damage to the rate of real wages that this reversal implies a result of the new gold and the price movement?

Whether or not it was so in part we shall consider more closely in a moment. It seems clear, however, that it was not so altogether. For two factors can be distinguished, both independent of gold and prices, that must certainly have contributed something towards it. The first of these factors is the large absorption, in the period from 1896 onwards, of resources in war—the Boer War, the Russo-Japanese War, the Balkan Wars—coupled with the fact that British capital was more and more finding attractive openings abroad. Hence the annual additions made to industrial capital available to co-operate with labour in this country were kept down by influences that were not operating before. The second factor is that the supply of industrial labour in this country was expanding in an abnormal manner. Mr. Layton has explained this matter very clearly in the following passage:

> "The birth-rate reached its maximum about 1871, and the large number of children then born reached manhood during the nineties and are now (1913) in the prime of life. Meanwhile, our improved housing conditions and the progress of medical science have been keeping alive, not only a larger proportion of the infants born, but also a larger number of the older folk, whose expectation of life is steadily lengthening. The net effect of those changes has been that, though the *total* population increased fastest earlier in the nineteenth century, *the available industrial population has increased most rapidly during the last two decades*. This is shown by statistics of the number of adult males in the population at various censuses. . . . There has been an addition to the adult male population under sixty-five since 1891 of no less than two and a half million persons, an increase of about 37½ per cent., though in the same period the total male population has only increased by twenty-four per cent." [1]

These two factors in combination, the check to new capital created and the more rapid increase in the supply of industrial labour, naturally tend to push the real rate of interest up relatively to the real rate of wages; and would, other things being equal,

[1] *Capital and Labour*, pp. 38–9.

cause the upward movement in the real rate of wages to experience an absolute, as well as a relative, check.

We have thus satisfied ourselves that a part, and probably a substantial part, of the set-back experienced by the rate of real wages in the period immediately preceding the Great War was brought about by causes with which neither South African gold nor the upward movement of prices resulting from it had anything to do as causes. There is still room, however, for the query whether *any* part of the set-back was caused by these things; whether, if the South African gold supplies had been just sufficient to keep prices constant, the set-back to the rate of real wages would have been smaller than it actually was. As has already been indicated, the gold and price movement *may* have reacted in some small measure adversely to production and, through production, to the rate of real wages. But there is no ground for holding that, in any event, this reaction can have been other than slight. Consequently, if any substantial part of the set-back to the rate of real wages resulted from monetary causes, these causes must have operated in a more direct manner. In the common view there is no difficulty about this. When prices rise, it is held, economic friction causes the rate of money wages to lag behind. The reason is that workpeople on the one side and employers on the other are accustomed to think of wages as so much money, without paying much attention to the fact that the real meaning of so much money varies as prices vary. The lagging on the part of money wages implies a fall in real wages. In this simple way a part of the set-back, which the rate of real wages experienced in the period we are considering, was directly and necessarily due to the upward movement of prices.

This apparently convincing analysis is, however, open to serious objection. The nature of this becomes apparent so soon as the process by which new money acts upon prices is clearly apprehended. We suppose that, apart from monetary causes, there are no influences at work tending to make aggregate production or the rate of real wages fall. When this assumption is not satisfied, the issue is altered in an important way that will be described presently. This assumption being made, however, it is plain that there is only one way in which new gold acts upon prices in a gold-standard country such as England was in the

period we are considering. The new gold flows into the Bank of England, with the result that the rate of discount falls and business men are encouraged to borrow more money to expand their businesses. They, therefore, purchase more raw materials. The increase in their demand for raw materials immediately raises the price of raw materials, and therewith, ultimately, the price of a number of other things in the manufacture of which the said raw materials play a part. As a result of this process the price of some of the things that workpeople are accustomed to buy—coal, for example—will go up; and, so far, the rate of real wages is injured in the way suggested in the preceding paragraph. But the main part of working-class purchases does not consist of commodities like coal, which serve as raw materials of manufacture. It consists rather of staple common articles of food, of which wage-earners consume in the aggregate an enormously greater mass than other classes, and the prices of which are only remotely connected with those prices of raw materials which the direct demand of employers forces upwards. In view of this fact it is difficult to see how the advent of new gold can raise the prices of the principal articles of working-class consumption otherwise than by first raising their aggregate money earnings, and this—if we take a view sufficiently long to eliminate the effects of fluctuations of employment—is equivalent to raising the rate of their money wages. If, however, the advent of new gold only raises the price of the things wage-earners consume by the indirect process of raising their money wages, it obviously cannot be an influence making for a reduction in the rate of real wages.[1]

This difficulty is fatal to the opinion that an increase in the gold supply injures the rate of real wages in the simple way set out above. It is not, however, fatal to a more highly elaborated form of that thesis. For let us suppose that, in the first instance, the prices of the things demanded by employers rise, but that the prices of the things consumed by wage-earners do not rise. If this happens, it becomes to the interest of producers to transfer their resources and activities from producing wage-earners' goods

[1] Of course, if the new gold raised food prices in the countries from which England imports food, our food imports would be checked and food prices then would be forced up without the need for any previous rise in our aggregate money-wages. But this suggestion merely transfers the argument developed in the text for this country to the foreign countries that send us food.

to producing employers' goods. The supply of wage-earners' goods is in this way reduced, and, therefore, after a little while, their price *is* caused to rise—it may be, before money wages have risen. That this is what was happening in the period prior to 1914 is suggested by the fact that the price of house-room rose to a much smaller extent than the prices of other things consumed by wage-earners; for, if the immediate cause of the rise in these prices is a contraction of supply, house-room, the supply of which can only be contracted slowly, would be the last thing to be affected. Confirmation of these suggestions is found in the fact that the period after 1896 differs from the period preceding it in that the price of food relatively to the price of materials was decidedly lower than it had been. If the process of events was a rise in the price of materials and, in consequence of this, a continuing diversion of productive power to materials instead of food, the rise in food prices would naturally lag behind the rise in material prices, thus bringing about the result that is actually found to have occurred. We may conclude, therefore, that in this indirect way the influence of new gold during our period, acting in conjunction with the stickiness of money wages, really did tend, in some measure, to depress the rate of real wages. Possibly its effect in this direction may have been a little enhanced by an expectation on the part of dealers, bred of the price rise that had actually taken place, that all prices were going to rise, and a consequent tendency on their part to hold goods from the market, and so to bring about the fulfilment of their own forecasts.[1]

In the discussion of the two preceding paragraphs it was assumed that there was no extra-monetary cause at work tending to reduce the rate of real wages. When there is such a cause at work, rising prices, however caused, may strike at the rate of real wages in a more direct and simple way. The non-monetary cause, whatever it is, tending to force down the real rate of wages would have considerable friction to overcome if, in order to accomplish its end, it had to force down the money rate of wages. But, if prices are rising, so that it can do this merely by preventing the money rates from going up *pari passu* with them, it has no fric-

[1] It may be that the evil plight of the wage-earners in Germany now is accentuated by this effect of an expectation of further inflation on the policy of dealers; though German wage-earners must, in any event, have suffered heavy loss in consequence of the collapse in the productivity of German industry and their own diminished efforts.

tion to overcome. Obviously, therefore, it will operate more swiftly and effectively. If, then, the absorption of capital in war and the expansion in the number of adult wage-earners during our period were causes in themselves adequate, not merely to prevent the rate of real wages from rising, but actually to reduce it, the expansion of the gold supply will have been able, along this route also, to strike a blow at the rate of real wages. On the whole, however, though no exact statistical investigation is possible, the general result of our study suggests that the part played by gold and price movements in causing the set-back to real wages of which we have record in our period was probably small.

VIII

EUGENICS AND SOME WAGE PROBLEMS [1]

EUGENISTS, along with other social reformers, have as their practical aim to improve society. Whereas, indeed, other social reformers concentrate attention on improvement through environing conditions, they look rather to improvement through a bettering of inherent inborn quality. But their final end is the same; and, therefore, before them as before all the rest of us, there stands, in the forefront of the battle, that ancient and formidable query, "What do you mean by a good society? You have named to us the goal you seek; proceed to define and locate it."

A society is a group of persons. If then we are to settle what we mean by good in society, we must decide first what we mean by good in a single man. Here at once a distinction must be drawn. When we speak of a quality as good, we mean sometimes one and sometimes another of two distinct things. Sometimes we mean that the quality is good in itself and ultimately, sometimes that it is an efficient means of promoting something else that is good in itself and ultimately. If we think about our friends and the people among whom we live, we may see very readily how different these two meanings of good are. Here is one we know, open-hearted, sincere, unselfish, responsive to every shade of beauty and every generous appeal, kind, loyal, ardent in living, ardent in pursuit; and here is another, with steel-sharp intellect, trained powers, a machine of incredible efficiency to accomplish any end. The first of these is in himself incomparably good, a star point in the ethical crown of the world,

> ". . . . . earth's flower
> She holds up to the softened gaze of God."

[1] The Galton Lecture: *Eugenics Review*, April, 1923.

The second perhaps is not in himself ultimately good at all, but is greatly good in the other sense, that he is an efficient means to promote what is ultimately good. When we are speaking of inanimate objects or of animals held merely as marketable possessions, there is no risk of confusion here, because a good motor-car means simply a motor-car that is adapted to particular ends and a good sheep means simply a sheep that will yield wool or mutton in profitable measure. Persons, however, are ends in themselves as well as means to other ends; and so to them the term good is apt to be applied in both senses. This inevitably breeds confusion. It is well, therefore, to keep the word good for qualities that are good ultimately and in themselves: the others we may designate, not as good, but as means to good.

Turn then to our goal of a good society. What we aim at is a society that is in the highest possible degree good in itself; containing persons whose qualities are good in themselves; who are happy—for happiness is clearly a good; whose mutual relations are intimate and friendly—for sympathy is clearly among the greater goods: the sort of society perhaps that Morris has conceived in his dream of John Ball. But, if this is what we want ultimately as an end in itself, we shall also want other qualities among the members of our society that are not, perhaps, good in themselves at all, but are an essential means to enable the good society to grow up and maintain itself. You cannot have a beautiful picture unless you have a canvas on which to paint it: you cannot have the good life unless you first have life itself; the artists and poets of Athens could not have adorned the world if there had not been available somewhere the qualities that are necessary to provide the means of subsistence and defence from danger. So, when we ask ourselves how the ideal society at which we aim should be constituted, it will not do merely to imagine to ourselves all the qualities that in themselves we regard as most wonderful and god-like and to pile them all upon every individual. Apart from anything else, it may well be held that variety is in itself a good, and that a group of varied persons, each a little less than perfect, will be better than a group of persons all perfect and all exactly alike. But this is not all. We need the qualities that are a means to good as well as those that are inherently good. A world containing nothing but Nietzchian supermen would

destroy itself in war: one consisting of nothing but St. Francis of Assisis would perish of its own pity. It would not function, any more than a man would function whose body consisted solely of the most honourable parts of the brain, or an engine consisting exclusively of perfect pistons. To secure the greatest sum of ultimate good, we need a balance: alongside of the qualities that directly contribute to that sum, we need also those that indirectly as means contribute to it and make it possible. This consideration leads up to two further thoughts very puzzling to all social reformers.

The first is this: if we stood over the birth of any child and were given power to endow that child precisely as we wished, we could not settle what qualities it would be best to give him merely from a knowledge of the comparative merits of different qualities. We should need also to know what qualities were being given to all the other children; for we should be concerned with our child's value as a part of the whole, fitting in with and promoting the good of the whole, as well as with his value in and for himself. And the second thought is this: even when the qualities of all the other members of our society are given, the endowment we should make to our child would not depend only on the endowment of the others. It would also be relative to the situation in which our society found itself as against the outside world. In a tropical climate, where nature is kindly to man, we should not give the same qualities as in the neighbourhood of the Poles: in a peaceful and serene world we should not give the same as in a world of rapacious imperialisms threatening destruction by war to all who are militarily weak. In view of all these complexities I fear that any social reformer suddenly endowed with omnipotence would find himself in sorry plight.

Let us now suppose that this great difficulty is somehow overcome. The next problem is one more special to the Eugenist. He wishes for certain qualities distributed in a certain way, and the method of getting them in which he is practically interested is a selective treatment of the birth-rate. In order to employ this method effectively—I am not now concerned with the practical difficulty of enforcing laws, for I still assume our reformer to be omnipotent—he needs to be able to infer from the actual qualities of potential parents the inherent nature that children born to them would have, and also to be able to form reasonably

clear ideas as to the kind of qualities into which a given inherent nature, subject to the environment with which it would probably be surrounded, would develop. The second of these tasks is a sufficiently serious one; but the first is the one on which I propose to concentrate attention here. Undoubtedly something can be known. Certain notable sorts of physical and mental defect found in potential parents can be recognized with reasonable certainty as congenital, and it is known that congenital or inborn defects in parents are frequently passed on to their children, or reappear in some or all of their children's children. Our omnipotent Eugenist, therefore, may with some confidence pick out a number of obviously degenerate individuals and decree that they shall remain childless. But, if he seeks to go beyond this, he finds himself at once in an uncharted sea. He is face to face with men and women who are the joint product of their inherent inborn qualities and of the environment in which they have lived both before and after birth. Such part of their qualities as is due to environment in any sense he has reason to believe is not heritable and is, therefore, not relevant to the choice he makes of parents for his children. But how can he tell what part of the qualities that he is observing in different people is due to environment and what part to inherent inborn nature? He is not free to make breeding experiments among human beings as he is among animals. He must grope in a twilight of ignorance so dense that it is hardly distinguishable from total darkness. Moreover, there is the further enormous difficulty that the same unit character in a biological sense may carry with it, for all we know, a number of different qualities, some of which may be desirable and others undesirable. If we make a tendency, say, to epilepsy a bar to parentage, we may witlessly deprive ourselves of an unborn Dostoevsky. There is, further, the awkward fact that, to make a child, two parents are needed, and, for all we know, in life, as in chemistry, a combination of two ingredients that are individually both bitter may yield a compound that is sweet. Yet again, even when the inborn qualities of parents are fully known and the normal result of their combination is also known, there remains the fact of mutations or sports. So far as the descendants of common ancestors in the dim past now appear as stocks of different qualities, mutations *must* have occurred among

human beings. Of *how* they occur we know practically nothing; except perhaps—and even this is doubtful—that the occurrence of a sport is the result of the dropping of some genetic ingredient, and not of the taking up of a new ingredient. We can never, therefore, be sure that, in preventing two people with "bad inherent qualities" from marrying, we are not robbing the world of a sport that would have represented the greatest genius there has ever been.'

In the face of these considerations it is clear that to no question, in which the Eugenist is interested, is there likely to be any *certain* answer. After all, however, of what other man's questions cannot the same be said? To the question even whether an external world exists at all the answer is not *certain*. The Eugenist, if he has to be content with *probable* answers, is no worse off than other people; and the fact that he has to be so content is no reason why he should abandon his inquiries. Look then at one of the issues that to him must now be dominant, and consider what can be said about it, from the point of view, not of an unattainable certitude, but of probability. Is there reason to expect that children born in the lower economic strata of society will, when account is taken both of goodness in itself and of capacity to fill an essential place in the economic organism, possess inherent qualities (1) less good in themselves and (2) less efficient as means to the good of the whole than children born in the higher strata?

If our question was merely whether economic success is a reasonable index of the possession of qualities good in themselves and economic failure a reasonable index of the lack of those qualities, the answer is plainly no. We have no reason to suppose that there is any connection whatever between these two things. But it is not so clear that economic success may not be an index of qualities that are *means* to good, not of course necessarily in any particular individual, but on the average and on the whole. Broadly speaking, a man succeeds economically when he possesses qualities that are useful in rendering service to society. Of course, some men rise to wealth through activities that greatly injure society. Of course again, a man may succeed on account of the favourable environment into which he has been born in spite of possessing very inferior inherent qualities. None the less, it seems reasonable to hold, in a very rough and general way, that economic

success does indicate the possession of qualities that are means to the good of society, and economic failure a lack of those qualities. If the different economic classes were shut off from one another by a rigid caste system, there would not, indeed, be any reason to believe this. But in actual fact there is a considerable measure of fluidity, and persons born in the lower classes who possess exceptional efficiency do in fact flow up into the other classes. Let us, then, at all events provisionally, conclude that the true welfare of society is likely to suffer, and a gradual deterioration to take place, if the proportion of children born among the lower social strata exceeds substantially the proportion born among the higher. On the strength of this provisional conclusion I propose to call attention to two tendencies that have recently become prominent in the sphere of economics and, without myself venturing on any analysis, to suggest that their possible eugenic of dysgenic consequences deserve closer study than economists by themselves are usually qualified to give to them.

The first of these tendencies was noticed some time ago by Dr. Bowley as regards the United Kingdom, and recent statistics show that it has operated in a number of other countries also. Since the period before the war there has been, in the generality of European countries, a very marked narrowing in the gap that separates the wages of skilled from those of unskilled workers. For example, in this country, as between 1914 and 1922, the real wages of skilled metal workers rose by 2 per cent., of unskilled metal workers by 33 per cent. ; the real wages of skilled builders fell by 4 per cent. but those of unskilled builders rose by 9 per cent. In Germany the real wages of skilled metal workers fell by 32 per cent., those of unskilled metal workers by only 2 per cent. : the real wages of skilled builders by 23 per cent., of unskilled builders by 5 per cent.[1] In Germany statistics have been prepared which show that this movement has extended throughout society generally. Among Government officials, for example, the higher grades were paid before the war between six and seven times as much as the lowest grade of workers ; now they are paid only just over twice as much ; and there have been corresponding changes among the intermediate grades. When account is taken of tax payments, which have, of course, become much more sharply

[1] *Manchester Guardian Supplement*, October, 1922, p. 545.

graduated than they were, the levelling of incomes available for expenditure is seen to be even more marked than the levelling of gross incomes. Now it is evident that, when the average rate of real earnings in any country falls heavily, as it has done in Germany, some measure of levelling *must* take place, for the simple reason that there is some minimum below which the wages of the lowest class of workers cannot fall, on pain of starvation. In England, however, the average rate of real wages does not appear to have fallen, and yet the levelling movement has been going on. No doubt, this may prove temporary—the mere aftermath of the war device of adding to wages bonuses based on the cost of living instead of raising rates of wages.[1] But the war has been finished four years, and, though the most recent figures show some relative fall in unskilled wages, these wages still remain substantially higher, as compared with skilled wages, than they used to be. In any event, even if the change in relative gross earnings is destined to disappear after a few years, there can be little doubt that the system of steeply graduated taxation has come to stay, so that, as between net earnings, after taxes have been paid, the levelling will be permanent. What, if any, effect is this likely to have on the quality of the people ? Will it cause the skilled classes to have fewer children relatively to the unskilled classes, and, if it does, is there ground for holding that unskilled workers are, on the average, of inferior stock to skilled workers, in a sense that would justify us in looking at the levelling movement with disquietude ? Of course, it will be understood that it is not the absolute rise, so far as there has been an absolute rise, in the wages of unskilled workers that is here in question, but the relative rise, or, to put the same thing the other way round, the relative fall in the wages of skilled workers.

The second tendency to which I wish to refer is more complex. Until quite recently it has been an accepted principle that wage

[1] It is interesting to note in this connection that in the United States the wages of common labour, which rose relatively to those of skilled labour between 1914 and 1920, have now sagged so far that by 1922 they bear a substantially lower ratio to skilled wages than they did in 1914 (*American Economic Review Supplement*, March, 1923, pp. 28 and 43). If the technique of industry were altered, e.g. by a great development of automatic machinery designed to satisfy a huge demand for a few specialized things, as in the war, the marginal value of a given quantity of unskilled, as compared with that of a given quantity of skilled, labour would rise, and a permanent rise in its relative wage might be expected.

payments made by employers to workpeople should not depend at all on the family estate of the different workpeople employed. A bachelor of given skill would be paid the same as a married man with a large family. It was felt that this arrangement was, in a general way, inevitable, because, if wages were made to depend on the size of a man's family, employers would always prefer bachelors or men with small families, so that in any time of reduced demand the whole of what unemployment there was would be concentrated on the men with large families. There is, moreover, a deeper difficulty which does not strike the public eye so readily. The number of people whom it pays employers in the country to hire for wages cannot exceed the number which, at the rate of wages they have to pay, just yields a profit at the margin. If the introduction of a system of family wages made the wage for family men higher than the current wage for men in general, which may be presumed in normal times roughly to equate the demand for and the supply of labour, this would cut down employment even in normal times in much the same way that an artificial raising of wages to all men would do.

During the Great War a breach was made in the custom of disregarding conjugal and family estate in fixing wages. The payments made to soldiers in effect varied with the size of their families, when account is taken of the maintenance allowances; and war bonuses on account of the increase in the cost of living were paid to members of the police force on the same principle. These arrangements are State arrangements in services not subject to competitive conditions; and, therefore, the difficulties in the way of them, to which I have made reference, did not make themselves felt. For it is, of course, possible for the State to pay different rates to different men if it so chooses, without giving any preference to those men who are cheaper to it; and it is also possible for it to maintain the same number of employees in the face of changes in the marginal wage that it has to pay.

Partly, perhaps, in imitation of this governmental war policy, some persons now desire to modify the practice of private industry on similar lines. It is, indeed, recognized that employers cannot be required either by law or by convention to differentiate directly between the wages of bachelors and family men, because, if they did so, family men would be greatly handicapped in the search

for employment. But the suggestion has been made by the Chairman of a recent Royal Commission in New South Wales that every employer, in respect of each worker of given quality employed by him, should pay the same given wage in to a central fund and that then, from this central fund, employees should be paid different wage rates according to the size of their families. In Germany this device, or what is substantially equivalent to it, appears to be coming into wide use. Owing to the serious fall in real wages a family man cannot live on the ordinary rate, and so, in spite of the efforts of trade unions to retain the system of equal wages for equal work, increments for large families are coming to be paid.

> "Virtually every collective agreement or State wages ordinance now contains this 'social wage' provision in one form or another and in varying gradations. In some cases private employers have contributed, according to the number of workers employed, to common funds for paying these increments, in order to avoid killing the competition of married workers and excluding the fathers of families from the means of bread-winning."[1]

The point of the central fund is, of course, that it prevents any individual employer from having to disburse more money when he employs a married man than when he employs a single man, and also prevents him from having to disburse more money than before in respect of *any* (say) thousandth man. His payment in respect of each worker can be kept exactly the same as it used to be, and, consequently, there is no tendency either to discriminate against married men in hiring labour or to cut down employment as a whole. What happens in effect is that the bachelors in each industry are taxed for the benefit of the family men in that industry, the amount of the tax being different in different industries according to the proportion of bachelors, men with small families and men with large families engaged in them. The fact that the tax is different in different industries is plainly, from the point of view of equity, a disadvantage in this system, as compared with a system under which bachelors in general should be taxed for the benefit of married men with families in general. But, from the point of view interesting to Eugenists, the arrangement is substantially equivalent to one in which, throughout industry, bachelors and married men without children should be taxed in order to provide

[1] *Manchester Guardian Supplement*, October, 1922, p. 564.

a bounty to men with large families. The principle is the same as that embodied in the rule that income tax shall be levied at a higher rate on bachelors and at a progressively lower rate on men with families of varying sizes. It is also the same as that underlying the legal enforcement of any sort of national minimum standard, since, obviously, greater help is likely to be needed to bring a family man up to any assigned standard than to bring a bachelor up to it.

Now it appears *prima facie* that an arrangement under which men with large families receive a bounty proportionate to the size of their families at the expense of the rest of the community must tend to increase the quantity of the population. There is, indeed, a consideration, not usually made prominent, which militates against this tendency. In so far as the great majority of people pass successively through the stages of bachelor, small family man and large family man, each individual may be regarded as giving a bounty only to himself. In the days of bachelordom money, which a man would have put by to provide for marriage and a family, is taken from him in taxes and given to a man who already has a family; and, later on, he is compensated by receiving money taken from a younger bachelor. So far as this picture represents the facts, the absorption by the State of money, which bachelors would have saved against marriage and the getting of families, must discourage them from this enterprise in exactly the same degree as the prospect of having the money given back to them when they do have families encourages them, so that no net encouragement is given to the growth of population. But, of course, in fact things do not work like this; for there are a number of men who will remain bachelors or will have small families in any event, and thus can look to no bounty to balance the tax laid on them. Therefore, there is bound to result from a policy of this kind some economic stimulus to the getting of families and so some tendency towards an increase of population.

Eugenists, however, are interested, not so much in the *quantity* as in the *quality* of population. How this is affected depends on how far the bounty at the expense of bachelors is applied more strongly to the worse or to the better stocks of the country. There is nothing in the nature of things to prevent it from being applied to all classes of employees from field-marshals, prime ministers,

civil servants, municipal officers, and so forth down to the lowest grade of manual worker. But, as a matter of fact, the political urge to employ it is likely to be much stronger among the lower grades, for the simple reason that, among them, as is illustrated by recent German experience, the pressure on a family man trying to subsist on the ordinary uniform wage is especially severe. Hence, as a matter of practice, the bounty, if not absolutely, at all events, as compared with normal earnings, is likely to be largest and most potent among the lower economic classes. If then we presume these classes to embody on the average worse stocks, the bounty will be applied most forcibly in favour of worse stocks.

Now, when we set together these two recent movements, the relative rise in the wages of unskilled workers and the tendency to make wages among the poorer classes depend in part on family estate, we are brought up against a very important distinction. An improvement in the fortunes of a particular class of poor people independently of the number of their children is one thing; an improvement proportioned to the number of their children quite a different thing. It is by no means clear that an improvement in fortune of the first sort will lead to larger families. Professor Brentano and others hold, on the evidence of the relatively low birth-rate among the better-to-do, that it may quite well have the opposite effect. But an improvement in fortune of the second sort definitely differentiates in favour of large families. This sort of improvement can hardly fail to promote large families among the people to whom the prospect of it is held out. Hence, *prima facie* Eugenists have greater cause for disquietude in regard to the second of these two recent tendencies than in regard to the first.

Even here, however, it would be rash, on the basis of existing knowledge, to speak with any assurance. It must be remembered that, as things are at present, members of the very lowest economic class do not regulate the size of their families by economic considerations, and that their children, if they cannot themselves support them, are in fact supported at the public expense. Hence a bounty, based on the size of families, among manual wage earners generally would not cause the lowest type of wage earner to have more children than he has now. It would, however, affect in

this way the higher types of wage earners. These higher types of wage earners would thus come to have larger families than before relatively to the lowest type of wage earners as well as, perhaps, relatively to the professional classes. The expansion of the middle section, being thus at the expense of both extremes, cannot, on any assumption about the relation between economic status and racial quality, be condemned *a priori* as injurious on the whole. The issue is one that could only be settled, if it can be settled at all, on the basis of a very laborious inquiry, in which eugenists, economists and statisticians would all need to play a part.

IX

SMALL HOLDINGS

THE subject of this paper is *Small Holdings*. In the course of it I propose to ask three questions. First, in what manner does the free play of economic forces, in the absence of State intervention, tend to regulate the size of agricultural holdings in England? Secondly, are there grounds for thinking that the results produced in this way could be improved upon by intervention? Thirdly, if this is so, what form is it socially desirable that intervention should take? These three questions I shall consider in turn.

An agricultural holding is a piece of land controlled under one management, just as an industrial holding is a factory, or group of factories, controlled under one management. In the simplest form of organization, in agriculture and in industry alike, the unit of holding in this sense is in general determined by, because it is necessarily equal to, the unit of ownership. In the absence of a system of tenancy, no agriculturist could occupy land that he did not own, just as, in the absence of a system of loans, no industrialist could control a factory whose equipment he did not own. In the modern world, however, the chains that tend to bind together, on the one hand, ownership and occupancy, on the other hand, capital and management, have been loosened. The influences which determine the distribution of land into holdings are, in general, therefore, independent of those which determine its distribution into properties. As I shall show presently, this independence is not complete. The effect on the size of holdings of causes acting primarily on the size of properties is, however, of *comparatively* slight importance.

The *main* influences affecting the size of agricultural holdings in any place are substantially the same as the main influences affecting the size of factories. Broadly speaking, large units have

the advantage where the work is suitable for elaborate machines: small units where detailed attention and personal care are of especial significance. The relative importance of expensive machines and of intensive labour is, of course, different, in respect of farms and factories alike, according to the kind of commodity that is being produced. Thus, in ordinary arable farming, the large unit is clearly superior. The large man has greater resources for purchasing, and greater opportunity for fully employing, expensive instruments such as threshing machines, drilling machines, winnowing machines, reaping machines and so on[1]; and his superiority in these respects can never be more than partially cancelled even where co-operative enterprise among small farmers has been carried to a high pitch of development. Furthermore, the large man is generally able to give more regular work to, and so to get more out of, the necessary horses. To set against these advantages there is practically nothing on the other side, for in arable farming "the qualitative properties of the work of the owner play a very small part."[2] The *a priori* reasoning, which thus suggests that the normal size of holdings is likely to be larger when arable farming prevails, is confirmed by a comparison of the actual size of holdings in arable and other districts. Dr. Levy finds:

> "In most districts the proportion of arable land rises almost regularly with the size of the holding. The larger the holding the more arable land; the smaller the holding the more pasture."[3]

On the other hand, in respect of such things as milk-production, vegetable-growing (other than potatoes), fruit-farming and poultry-farming, machine labour plays a relatively small part and the close supervision of some one personally interested in the success of the undertaking a relatively large one. Dr. Levy goes into this matter in detail, and concludes:

> "Personal interest is the only force strong enough to call out the care, attention and painstaking exertions required for *petite culture,* and this personal interest must be near enough to be concentrated on the actual work itself and not merely on general organization."[4]

The way in which the influences just described work themselves out in any country evidently depends upon the kind of

[1] Cf. Levy, *Large and Small Holdings*, p. 160.
[2] *Ibid.*, p. 157. [3] *Ibid.*, p. 105. [4] *Ibid.*, p. 163.

crops which general conditions make it economically advantageous for the country to grow. If these conditions favour a crop in the production of which machinery is very important, the country will be mainly a country of large holdings; if they favour a crop in the production of which intensive detailed work is very important, it will be mainly one of small holdings. These broad considerations are readily applied to the special case of the United Kingdom. Before the opening up of the great wheat areas of the New World English agriculture was devoted in the main to the production of wheat and, in a subordinate degree, to that of various kinds of meat. By the end of the seventies, however, the growth of railways in the United States, coupled with the land policy of the United States Government, had brought vast areas of new wheat land into connection with the European market. The competition thus set up greatly reduced the profitableness of wheat-growing in this country. Nor was this all. The discovery of cold storage and freezing processes in the early eighties enabled meat as well as wheat from distant territories to be imported into the United Kingdom on easy terms. The result of these things in combination was twofold. On the one hand, even had the demand for the various products of the soil remained unaltered, the old uses of wheat-growing and meat-growing, to which English land had hitherto been put, would have tended to give place to other uses. But, as a matter of fact, the demand for the various products of the soil did not remain unaltered. Partly through general causes and partly through the very fact that the staple articles of food had become cheaper, the purchasing power of the mass of the people in respect of other articles of food, and, therewith, their demand for these things expanded. Consequently, the place formerly occupied by wheat-growing and meat-growing came to be taken over to some extent by dairy-farming, vegetable-growing, fruit-growing, poultry-farming, and so on.[1] It became, in fact, relatively more profitable to produce these things, as compared with the old staples, wheat and meat. Hence, whereas the general influences upon which the normal size of holdings mainly depends tended until recently to favour a system of large farms in Great Britain, they are now (1913) in many respects more favourable to the development of small holdings. A study of the statistics

[1] Cf. Fay, *Co-operation at Home and Abroad*, p. 215.

of the size of farms published by the Board of Agriculture lends *a posteriori* confirmation to this view.

So far we have considered only those influences upon the size of holdings that work through productivity in respect of crops. It must, however, be remembered that land yields, in addition to crops, important "amenities," the value of which depends in part upon the size of the holdings into which it is divided. The most obvious amenity, indeed, namely the social prestige which is associated with land, is a function, not of the unit of holding, but of the unit of ownership, and is not, therefore, directly relevant to our present problem. Thus, if 100,000 acres of land are divided evenly among five owners, the aggregate yield of prestige will be much larger than it would have been had the land been divided among 500 owners; but, given the number of *owners* among whom it is divided, social prestige is likely to be pretty much the same whether the land is farmed by a few large or by many small *tenant occupiers.* The amenity of prestige is not, however, the only amenity which land conveys. There are also amenities connected with sporting rights, the æsthetic appearance of estates and local politics. There is reason to believe that a larger value of these amenities is carried by 100,000 acres divided into a few large holdings than by the same area divided into many small ones. The value of these extra amenities is reckoned in by landlords along with the probable rents obtainable, when they are making choice between letting their land in large farms or in small farms. Their general character is described by Dr. Levy thus:

"Small holdings are much less favourable than large to sport and hunting . . . In many neighbourhoods the landlord is an opponent of small holdings for the reason that they demand the transformation of arable into pasture, which is bad for partridge shooting. . . . Nor is this the only non-economic motive which affects the landlord adversely to small holdings. The cutting up of large fields and pasturage, and the multiplication of buildings and erection of houses with smoking chimneys, may offend his taste and his sense of pride in his estate. Again, many conservatively-minded landlords are doubtful whether the new race of small farmers, mostly raised from the ranks of the new labourers, will respect the political views of their squire as well as the old true-blue big farmers, and whether the creation of these new holdings may not create a crowd of Radical land-reformers on their own preserves. This alone is sufficient to make many landlords prefer lowering the rent of their

existing tenant to cutting up the farms with a view to obtaining a larger income."[1]

This influence has tended in the past and is still tending to some extent to promote a system of large as against small holdings in this country. It is, however, rapidly becoming less important.[2]

The two sets of influences which I have been considering hitherto are what economists call long-period forces, and they would operate even if the decision between large and small farms had to be taken now for the first time. Besides these forces there are, however, others of less permanent but still of considerable significance. These may be grouped together roughly under the name economic friction. In this country at the present time they tend in two distinct ways to favour large holdings as against small.

First, consider, from this point of view, the relation between the unit of ownership and the unit of holding. I have already indicated that the social prestige attaching to large estates tends to the establishment of such estates. As Dr. Levy observes:

> "The exchange value of a large estate is, for social and political reasons, higher than the price which small agriculturists can afford to pay for it when cut up into areas of 5 to 50 acres."[3]

Furthermore, in this country, the custom of entail and the handing on of landed property intact to the eldest son aid the system of large ownership. I do not claim, indeed, that there is a permanent and essential difference in this respect between England and such a country as Belgium, where the law compels the division of estates among the children when the owner dies. For here entail can be broken and estates sold in parts; and there one of the children or an outside capitalist can buy the others out and bring the broken parts of an estate once more together.[4] Whereas, however, the Belgian law throws the forces of inertia on the side of small properties, the English law throws them on the side of large properties. The legal costs, among other things, of selling land in small parcels are proportionately greater than those of selling it in large parcels.[5] Now, as was said earlier in this paper, the size of the unit of hold-

[1] Levy, *Large and Small Holdings*, pp. 120–1.
[2] Cf. Marshall, *Principles of Economics*, p. 654.
[3] *Large and Small Holdings*, pp. 128–9.
[4] Cf. Rowntree, *Land and Labour in Belgium*, p. 112.
[5] Cf. Nicholson, *Principles of Economics*, Vol I, p. 308.

ing is, in the main, independent of the size of the unit of property or ownership. This independence is, however, incomplete. The reason is that the division of property into several tenancies involves friction and the union into one tenancy of several properties also involves friction. Hence, where the system of small ownership prevails, friction somewhat favours small holdings, and where, as in England, large ownership prevails, it somewhat favours large holdings.

Secondly, economic friction works in favour of the *status quo*, and the *status quo* in England at present (1913) is the system of large holdings. The reason is, as already implied, that, until recent years, general conditions were such as to promote the production of those crops that can be best grown on large holdings. Hence large holdings are, as it were, in possession; and, in order to dispossess them, it is necessary, not merely that small holdings should be economically superior, but that their superiority should be great enough to compensate for the trouble, cost and risks of transition. This circumstance may bring it about that large farming continues for some time on areas that, in consequence of changed economic conditions, have become intrinsically better adapted to small farms.

This study of the causes by which the size of holdings in this country is, in fact, governed leads up to the question whether deliberate interference with those causes on the part of the State is socially desirable. As is well known, the more rigid form of the classical political economy taught that the play of self-interest in any community tends, if left to itself, to bring about the socially "best possible" arrangement, and that, therefore, State interference with any "natural" result of economic causes is to be deprecated. Rigid views of this kind are, of course, no longer held. There is still, however, enough life in the old doctrine of "maximum satisfaction" to throw the burden of proof upon those who would interfere with "natural tendencies." Now, nobody wishes the State to step in to encourage "unnaturally" large holdings. Many persons, however, wish it to step in to encourage "unnaturally" small ones. The question we have to ask, therefore, is whether an adequate case for this sort of intervention can be made out.

State interference favourable to a particular course of action

is *prima facie* justified when the action would yield socially advantageous results additional to those which enter into the calculation of the persons by whom the action has to be undertaken. There can be no doubt that, among small holdings, as among those small productive establishments at which co-partnership aims, there is at least one important by-product of this nature. The point may be put thus. When the separate steps in the agricultural or industrial ladder are large, it is difficult for a man adapted to life at one stage, if he, by some accident, stands at another stage, to move to his proper place. Thus, if agriculture or industry were "worked" exclusively in large units consisting of one or two large entrepreneurs assisted by a number of mere labourers, any capacity for management and direction that might be borne among people in the labouring class would have no opportunity for use or training. It would, therefore, in great measure run to waste. If, however, industry or agriculture is organized by way of units of many different sizes, a workman possessing mental power beyond what is normal to his class can, without great difficulty, himself become the master of a small establishment, and gradually advance, educating his powers the while, higher up the ladder that is provided for him. Gardens and small allotments near their cottages for workmen in regular employment elsewhere, large allotments for workmen occasionally taking odd jobs elsewhere, and small holdings for those who devote themselves entirely to work on these holdings provide in combination a complete ladder from the status of labourer to that of independent farmer. Such a ladder yields a product of human capacity over and above its product of crops. It turns out for the service of the community, not merely vegetables and fruit, but trained, competent men. This social product, however, does not accrue to those persons by whom the size of agricultural holdings is regulated, and does not, therefore, play any part in determining their action. Hence, if the play of self-interest is left free of interference, it is not likely to lead to so full a development of allotments and small holdings as is socially advantageous. It follows that State action designed to counteract this failure is *prima facie* desirable.

The consideration just set out is applicable to all grades of small holdings, whether the technical "small holding" of the Small Holdings Act, comprising "land which exceeds 1 acre

and does not exceed 50 acres, or is of an annual value not exceeding £50," or the smaller "allotment," which is generally cultivated as a by-occupation by some one mainly engaged in other work. The consideration to which we now pass is of more special reference to "allotments." A peculiar social value attaches to these because they afford an occupation to which workpeople can turn when employment in their main industry is slack. As Dr. Marshall observes, they, in this way,

"diminish the fretting as well as the positive loss caused by the inevitable interruption of ordinary work."[1]

They also afford a counter-attraction to those grosser and baser pleasures to which men, during such interruptions, are specially tempted to turn. Further,

"they break the monotony of existence, they give a healthy change from indoor life, they offer scope for variety of character and for the play of fancy and imagination in the arrangement of individual life."[2]

Finally, at all events when they are attached in the form of gardens to workmen's houses, they afford an occupation both profitable and pleasurable for their wives and elder children. These various advantages do not, however, enter at their full value into the calculations of people considering whether or not they shall attempt to acquire an allotment. Consequently, there appears to be *prima facie* reason for State action designed to encourage them to do this.

If it is granted on these grounds that some form of State interference in favour of small holdings is desirable, the question what is the most suitable form still remains to be answered. Controversy centres on the point whether the State can advantageously intervene to encourage the growth of small occupiers who shall be at the same time small owners, or of small occupiers who shall be tenants of County Councils or other public bodies. This controversy, it must be clearly understood, is not one between small ownership and small tenancies in the ordinary sense of the word. On the one hand, a tenant of a public body has practical fixity of tenure and is thus in an entirely different position from an ordinary tenant. On the other hand, no instructed advocate of small ownership desires that the ownership should be unlimited

[1] *Principles of Economics*, p. 655, footnote.
[2] *Ibid.*, p. 654.

on the pattern of ordinary ownership. It is recognized that the State must impose restrictions upon the peasant proprietors whom it helps to create, so as to prevent them from selling their land back again to some would-be large landowner; for, unless this is done, the money provided by the taxpayers may fail to establish a race of small proprietors and may serve merely as a present to a few favoured persons. Thus, the most important incident in ownership, namely fixity of tenure, is offered by the advocates of tenancy; and the most important incident in tenancy, namely restriction upon the tenant's right to dispose of his holdings, is offered by the advocates of ownership. It is plain, therefore, that the advocates of small tenancy and of small ownership are really much closer together than their rival battle-cries suggest and that the controversy between them is comparatively trivial.

This controversy, such as it is, depends on a balancing of two conflicting considerations. On the one side it is pointed out that small ownership would be more costly to introduce than small tenancy. The cause of this is the superior value which estates have, on account of social prestige and so on, when they are owned in large blocks than when they are divided. I have already quoted Dr. Levy's sentence:

> "The exchange value of a large estate is, for social and political reasons, higher than the price which small agriculturists can afford to pay for it when cut up into areas of 5 to 50 acres." [1]

This difficulty, it should be further observed, is not one which can be overcome by any ordinary system of compulsory purchase.

> "Compulsory purchase—under the Small Holdings Act of 1892—could not abolish the fact that it was often necessary to pay for qualities of the land which were of value to the wealthy land-owner, but not to the small cultivator." [2]

It is, therefore, necessary for the State to make up out of the public funds the difference between the value which the land it desires for peasant proprietors has when held in large estates and the value which it has under minutely divided ownership. This was more or less the policy of the last Irish Land Act. The rival

[1] *Large and Small Holdings*, pp. 128–9.

[2] *Ibid.*, p. 144. Under the Small Holdings Act of 1892, the County Councils were not allowed to pay more for the land than the small purchaser from them could repay.

system of small tenancy can avoid this necessity because, under it, the public body, which is to act as immediate landlord to the small tenants, need not purchase, but may be content to hire—if necessary on compulsion—the land it requires. In so far as the high value of large estates is derived from the prestige given by ownership, this high value is not reflected in any correspondingly high rental; for the prestige, which the landlord would lose by selling his land, he retains when he merely allows it to be hired. Hence, we may reasonably suppose that a given sum of public money could accomplish more in setting up small tenants than it could do in setting up small owners.

On the other side appeal is made to the "magic of property," and it is claimed that the stimulus to energy and so on, which ownership confers upon small owners, is worth more than the extra price which has to be paid for establishing it. To determine whether or not this is so at any particular place and time, a detailed acquaintance with rural practices and rural psychology would be necessary.[1] In existing conditions in this country the dominant opinion among experts seems to be that the merits of small ownership are less than is popularly supposed. The magic of property, it is pointed out, is, in the main, not the magic of property, but the magic of security of tenure and compensation for improvements; and these things are present in tenancy under a public body almost as completely as under ownership. On the other hand, small ownership cannot easily be introduced without a substantial deposit being required from the small owner at a time when he has great need of capital for stocking his holding; and this circumstance will be likely to lessen his productive efficiency. Furthermore, a small owner is liable to be placed in a difficult and vexatious position —not at all one conducive to spirit and energy—when a growing family or some other cause makes him anxious to surrender his holding and to obtain, instead, a larger or a smaller one. These considerations, so far as they go, suggest that the State would do

[1] "It is interesting to note that a much smaller area of the Belgian soil is cultivated by owners than is the case in France, Germany, or Denmark, for, while, as we have seen, only about one-third (35 per cent.) is cultivated by the owners in Belgium, the proportion rises to nearly nine-tenths in Germany and Denmark (86 and 88 per cent. respectively), and to nearly one-half (47½ per cent.) in France. In Great Britain, only 12 per cent. of the agricultural land is cultivated by the owners" (Rowntree, *Land and Labour in Belgium*, pp. 113–14).

well to encourage small tenants rather than small owners, even though there were no difference between the expense involved in the two policies. When, therefore, the argument from expense is included, the scales, as it seems to me, incline decidedly on the side of small tenancy. As I have already said, however, the restricted sense in which the terms ownership and tenancy are understood by their advocates renders the choice between them a matter of subordinate importance.

X

THE CONCENTRATION OF POPULATION

THE development of transport and the growth of capital have done much to concentrate population into large local aggregates. In primitive times the inhabitants of all countries tended to be spread over the land and dotted about, as it were, in small groups each more or less self-sufficing. In modern times a considerable part of them is apt to be bunched into groups which are individually large relatively to the total population; and this concentration is carried furthest in the great industrial communities of Europe and America as they exist to-day. The purpose of this paper is to investigate the causes upon which concentration in the above sense depends.[1]

Let us begin by assuming that concentration of people's work implies concentration of their dwellings and, therefore, of their life. As a matter of fact, as will appear presently, this connection is not necessary; indeed, the possibility of severing work-place from dwelling-place is a very important social fact. Still, though it *might* happen that, at the same time that work was being more concentrated, other influences were causing dwellings to be more scattered, yet, *pro tanto*, influences making for concentration of work must make also for concentration of dwellings. Therefore, other things being equal, the causes which I now proceed to discuss, those, namely, which affect concentration of work, may fairly be regarded as also causes making for the concentration of dwellings.

[1] The language of this paragraph is used advisedly so as to keep the idea of concentration distinct from the idea of density. If concentration were measured by, say, the number of towns of over 5,000 people, it would, of course, grow as population grows. But, properly defined, concentration is not directly affected by density.

When the condition of the agricultural arts is so primitive that practically all the working time of a community has to be devoted to the task of winning food from the soil, concentration is not to be looked for. Nearly everybody being engaged in agriculture, work must be distributed over the country in the way that is most productive of crops. Clearly, however, a large concentration of effort upon a small area of land is, owing to the tendency to diminishing returns, less productive than the same quantity of effort spread over a wider area. This, as Sir Theodore Morison points out, is perhaps the main reason why the peoples of India and of England are distributed in different ways.

" In order to cultivate the soil the people must be spread over it; in India, therefore, the population is diffused more or less evenly over the face of the country; in England it is aggregated in a number of large towns." [1]

As agricultural arts improve, the proportion of any community's working time that has to be devoted to the extraction of food from the soil diminishes. During the last half-century, in particular, machines have been perfected and discoveries made, which, now that they have come into general use, enable a given quantity of agricultural produce to be obtained at an immensely reduced cost of human effort.[2] This development, moreover, has two sides. In part, the adoption of new ideas has reduced the actual quantity of effort required to produce a given quantity of food. But, over and above this, by dividing the effort into two portions, one devoted to constructing the new machines and another to working them, it has enabled a large part of the effort that is still devoted to food production to be devoted to it indirectly and without the need for those supplying it to be actually in contact with the fields. Thus, the proportion of the community's working time devoted directly and indirectly to food extraction is diminished, and the proportion devoted to agricultural operations proper is diminished still further. Hence, a large part of that working time is set free for other occupations, which do not, like agriculture, necessarily involve a scattering of their devotees. For many more people than before concentration is not precluded by the nature of the work they are engaged in.

It may, however, still be precluded by another cause. Whether

[1] *The Economic Transition of India*, p. 8.

[2] *Report on the Decline of the Agricultural Population*, 1906 (Cd. 3273), p. 14.

or not they are occupied in agricultural pursuits, all men need agricultural products. Given, therefore, that these products can only be obtained by the cultivation of a widely extended area, non-agriculturists, no less than agriculturists, must be scattered until effective methods of transportation are developed. Whatever advantages concentration may have for their own work, these advantages cannot bring concentration about until there has been developed a reasonably cheap and speedy means of collecting and distributing the food produced by agriculturists. This, as well as improvements in agricultural methods, is an essential condition of concentration. Apart from this, a system of self-sufficing villages, such as once prevailed almost universally, and still prevails in great measure in India, is *necessary*.

When these two conditions—agricultural methods that allow the food supply of the community to be obtained without everybody having to work on the soil, and developed transport arrangements—both exist, any tendency there may be towards concentration of work in large centres has free play. How strong it is depends on how far this sort of concentration is economically advantageous. It is plainly advantageous in so far as the supplies of something useful to man are concentrated at a small number of points. Coal, for example, is found only in special localities, and it is, consequently, inevitable that the work of extracting it shall be concentrated in those localities. Moreover, the more coal that is required by the community, the bigger the concentration of workers in the coal centres must become. In so far as materials of particular industries or sources of power are localized and difficult to transport, it is also plainly advantageous for the industries that make use of those things to be concentrated at the places where they are found. When steeply falling water was a principal source of mechanical power, those industries which needed this power were bound—before the days of electricity—to be concentrated near falls, because it was not merely costly, but physically impossible, to transport the power elsewhere. In the early days of coal, when transport was very slow and difficult, industries that required to use a large bulk of coal as compared with the bulk of their finished products were, in like manner, practically bound to be concentrated in the neighbourhood of coal-mines, unless, indeed, they made use also of some other bulky material produced else-

where. With improvements in transport, however, the advantage to be got from concentrating industries in the near neighbourhood of the sources of power and the sources of their raw materials has greatly diminished. Now that coal, for instance, can be carried cheaply and rapidly all over the country, or alternatively the power stored in coal can be generated at the pits and carried long distances in the form of electricity, concentration of industry in the neighbourhood of coal mines, though still yielding some advantage, no longer yields a compelling advantage. Influences that promote scattering, among which the most important is the high cost of land in densely peopled places, can make themselves felt. There is no longer one force only to be attended to, but a balance of conflicting forces. The result is that factors concerned with *production*, though still important, are no longer, if, indeed, they ever were, the dominant cause of local concentrations.

This dominant cause is one concerned with *distribution*. It consists in the fact that communication between a number of different places can be effected at least cost by establishing certain centres, from which roads or, at a later stage, railways can be made to radiate in all directions. If the surface of the country were such as to permit movement from any one point without special preparation to any other, there would, indeed, be no need for centres of distribution. In general, however, movement on land implies some kind of made road. It would be theoretically possible to have a separate road joining together directly every pair of places in the country. But, plainly, much less mileage will be needed if a comparatively small number of centres are connected together by trunk roads and communication from a distance with places near any of these centres is effected through the centres. This circumstance stimulates the growth of concentrated centres of distribution. The stimulus is independent of variations in the conformation of the earth's surface, and would exist, provided only that roads had to be made, on a perfectly symmetrical plane. It is, however, intensified, and the centres of distribution made less numerous and larger than they would otherwise be, by the existence of valleys, hills and plains, and by the breaks of transportation which occur at national frontiers and at the junction of land and water routes.

"So we find commercial centres at the confluence of rivers, heads of navigation, fords, meeting points of hill and plain, and other places where the physical configuration requires a change of vehicle."[1]

The work of distribution concentrated at these and similar points is considerable in amount. With masses of goods coming through, the mere physical task of transference must employ the labour of a good number of men—dockers, railway porters and so on. But, in general, a centre of distribution is concerned with more than this physical transference. The goods sent into it are not, as a rule, already sold to customers in other towns, but are sent *to be sold* to them. Thus, the centre of distribution becomes at the same time the seat of an entrepôt trade. Change of ownership occurs at it as well as change of vehicle. Hence,

"there is added to the mechanical apparatus of temporary storage and transfer the complex mechanism of commercial exchange";[2]

import and export agents, banking houses, dealers and innumerable others. As wealth increases and as people in one place come, with the development of foreign trade, to depend more and more on the products of other places, the work to be done at these centres of distribution grows also. Nor is this all. A doubling of the world's annual wealth means more than a doubling of the quantity of trade, because, as the output of more or less specialized producers expands, the proportion, and not merely the absolute quantity, of output that is exchanged must expand. Hence,

"the process of distribution will require a growing percentage of all the workers for its efficient action."[3]

The result is that, with the extensive trading of the modern civilized world, concentration of work is greatest, not in *industrial*, but in *commercial* cities.

So far I have been concerned with causes of concentration acting directly—causes, that is to say, which bring people together in large numbers either to do certain industrial work or to do certain commercial work. There are also causes that act indirectly. When a number of people are brought together at any point for any purpose, the fact that they are there at once

[1] Weber, *The Growth of Cities*, pp. 172–3.
[2] *Ibid.*, p. 173.
[3] *Ibid.*, p. 224.

becomes a cause for yet other people to come there. The reason for this is that any agglomeration of people has need of services that can only be rendered by other people who work near them. If in any place there are 100,000 persons engaged in coal mining or cotton spinning or commerce, these persons generate a local demand for builders' work, shopkeepers' work, bakers' and butchers' work, tool-repairers' work, doctors' work, bankers' work, the work of those who provide various sorts of amusement, and so on. Hence, a town due to coal mining or to cotton spinning or to commerce is necessarily much larger than that kernel of the town which is actually engaged in the one or the other of these occupations; and, thus, industrial and commercial towns alike tend to be on a larger scale than a superficial consideration of the facts suggests.

I now come to another and very important matter. So far industrial and commercial towns have been considered separately, and it has been tacitly assumed that they will in fact be materially separate. But, with the age of water-power gone and the transport of coal easy and cheap, there is, as I have argued above, no overmastering force tending to establish industrial towns at particular places. What in these circumstances is likely to be the local relation between industrial towns and commercial towns? Will the two tend to coalesce? Will the existence of a commercial town at any place itself attract industrial concentration to that place rather than to some other place? The point is important, because, if the two classes of town have a tendency to merge, the size of the typical aggregation in any country will be much larger than it would otherwise be. The tendency to mergence, if it exists, is, in short, itself a cause of concentration. How far does the tendency exist?

When factories establish themselves in commercial towns, they avoid the need of sending their products to those towns, and thus have a shorter journey to accomplish before reaching the consumers for whom they ultimately cater. This advantage is diminished as the cost of transport falls. It must always, however, exist in some degree. Over against it is the disadvantage that in commercial towns the demand for land for commercial purposes makes the land more expensive to people needing it either for factory sites or for the homes of workpeople to be employed in

factories. Even when the conditions are such that a factory situated inside a town can employ workpeople living outside, that factory is still working under more expensive conditions than one itself situated outside among its workpeople and, therefore, not needing to pay extra wages to cover their higher rents or extra travelling expenses. The normal result of the interplay of these conflicting forces would seem to be to locate the generality of industries—those, that is to say, for which a centralized situation is not for some special reason essential—in the *suburbs* of commercial towns. Industrial towns tend, not to coalesce with commercial towns, but to be attracted into their near neighbourhood, as satellites are drawn to their central sun. In this way the advantages of cheap land are combined with the advantages of nearness to a centre of distribution. Thus:

> "Although Manchester, Leeds and Lyons are still the chief centres of the trade in cotton, woollen and silk goods, they no longer produce any great part of these stuffs. Manchester is surrounded with scores of industrial cities and villages."[1]

I now revert to the distinction drawn at the beginning of this discussion between concentration of work and concentration of life. We have been considering the way in which commercial work and factory work tend to be distributed, and we have now to ask how this distribution reacts upon the dwellings of workpeople. Of course, if passenger transport were exceedingly expensive, it would be essential for all workpeople to live close to their work, and, therefore, any concentration of work would imply a practically equivalent concentration of life. In the modern world, however, transport of passengers is not exceedingly expensive, nor is it exceedingly slow. Consequently, although some workpeople, such as railway porters, newspaper men and bakers, whose work starts very early in the morning, are more or less bound to live on the spot, this is not necessary for the great body of workpeople. They *can* live several miles away from their work if they wish to do so. Furthermore, by doing this, they will be able to obtain houses on cheaper land and, therefore, at lower rents, and their saving under this head will be set against the cost and trouble of the daily journey. Therefore,

[1] Weber, *The Growth of Cities*, p. 473.

just as the normal play of economic forces tends to scatter industrial towns like satellites round central commercial cities, so also it tends to scatter villages occupied by workpeople both round the central sun of the commercial city and also round the minor satellites of the encircling industrial towns. The bulk of the workpeople employed in the commercial city itself or in large industrial towns will tend to live at a considerable distance from their work, because the value of land is high over a large area. Those employed in small industrial towns will be able to live much nearer; and, if the town is sufficiently small, they need only live a few minutes away.

The clear-cut results so far obtained are somewhat blurred, and the tendency towards concentration of work and of life alike is somewhat strengthened by the fact that great cities, as such, exercise an attraction for certain sorts of low-grade labour more than proportionate to the advantages which they can offer to it. This excess of attraction is partly due to the fact that workpeople, contemplating the advantages offered by various places, are apt to look to money wages rather than to real wages, and, thus, to exaggerate the advantages of places where prices or rents are high. It is partly due also to the glamour exercised by a big city and the feeling that, in so large a place, something is sure to turn up—a feeling likely to appeal to all those who are vaguely discontented with their present lot. There is in this irrational attraction a direct cause making for concentration of life; and this reacts in turn to produce concentration of work. For the over-supply of low-grade labour implies abnormally low wages, and, therefore, a kind of bounty on the establishment in commercial cities of industries that can make use of their work. We thus find, in fact, greater concentration both of life and of work than we should do if economic motives were operating in a world of purely rational beings. The result is, however, not to change fundamentally, but only slightly to distort the normal tendencies set out in the preceding paragraphs. The general arrangements which the forces at work tend to bring about are, thus, systems of industrial towns grouped round large commercial cities, and systems of workmen's villages grouped in turn round both the cities and the towns.

It is in the power of those persons who control transport charges,

whether directly or through the instrument of conditional State bounties, to modify these arrangements in some degree. The forces that make against concentration of life can be strengthened by railway tariffs in which long-distance and short-distance transport are subjected to nearly equal charges. If tariffs of this sort are applied to goods, they will weaken the tendency for industrial towns to grow up within, or near the borders of, commercial cities, and so, by scattering these towns, will scatter their satellites at the same time. If they are applied to passengers, they will weaken the tendency for workpeople to live near their work, and so will scatter alike those villages that cluster round the commercial city and those attached to the industrial towns. The result, in either event, is likely to be that more workpeople's homes will be established in rural surroundings.

XI

SOME ASPECTS OF THE HOUSING PROBLEM[1]

In setting out to address you on the topic from which my lecture takes its title, I owe a preliminary apology. I am in no sense a housing expert, and have no special knowledge of the details of the problem, as it presents itself either in large towns or in rural districts. But it is, I think, sometimes useful for a person who is not a specialist to review a special subject in the light of things in general; to try to fit it in as a part of a larger whole; and to see how far it may be regarded, not as something peculiar, but as a particular case of some wider problem. It is from this point of view, and with this endeavour, that I approach my present subject. I wish to consider the housing problem as one aspect of the general problem of poverty.

The position from which I start is this. It is the duty of a civilized State to lay down certain minimum conditions in every department of life, below which it refuses to allow any of its free citizens to fall. There must be a minimum standard of conditions in factories, a minimum standard (varying, of course, with the strain involved in different industries) of leisure, a minimum standard of dwelling accommodation, a minimum standard of education, of medical treatment in illness, and of wholesome food and clothing. Each one of these standards, so far as practicable, must be enforced separately. No such plea must be admitted as that, if a man is allowed to work excessive hours, or to live in a cheap and ruinous house, he will be able to attain independently to the required minima in all other departments of life. The standards must be upheld all along the line, and any man or family which fails to attain independently to any one

[1] The Warburton Lecture, Manchester University, 1914.

of them must be regarded as a proper subject for State action. The exact level at which the several standards should be set is naturally different in different countries. It should be higher in those that are rich than in those that are poor. But everywhere *some* system of standards should be set up, and the lapse below any one of them should be made the occasion of intervention by the public authorities. For this position a good defence can, in many instances, be made upon grounds of economy; for expenditure of State moneys, so arranged as to maintain the efficiency of the poor, may often be profitable expenditure. But, even where this ground fails, the policy that I have sketched is amply sustained: for it is no more than an acceptance in concrete form of the compelling obligation of humanity.

If this much be granted, the next step in our inquiry is to work out the general conception of a minimum standard in its special application to housing. This task is not so simple as it seems; for satisfactory housing accommodation is a complex conception, involving several elements. Of these two have long been recognized. The first has to do with the structure and repair of individual houses. Dilapidated houses, houses that are not rain-proof, houses in which the sanitary arrangements are inadequate, houses so made that there is no proper means of ventilation—the building of these must be forbidden by law, and, if they have been built already, they must, through law, be either renovated or destroyed. The second element has to do with the overcrowding of rooms. To prevent this also, whether the threatened overcrowding be due to too large a family or to too small a house, or to the taking in of lodgers, direct legislation is necessary. In Mr. Syke's words, what is required

"can only be done on a sufficient scale by a statutory definition of overcrowding of cubic space";

and he adds, giving his own view of what this definition should be,

"nothing short of 400 cubic feet per head for adults will be satisfactory, although it may reluctantly be reduced to half the amount for children under ten years."[1]

A policy on these general lines is pursued by the London County

[1] *Public Health and Housing*, pp. 151–2.

Council in respect of houses managed by them. They have a rule that, among their tenants,

> "the standard of two persons a room must not be exceeded by more than one child under three years."

Annual inspection secures that a change shall be made when natural increase passes beyond these limits; and lodgers can only be taken in with the Council's leave.[1]

In addition, however, to these two elements in satisfactory housing accommodation, we are rapidly coming to recognize a third. If one walks through an ordinary town to-day, and particularly if one walks through London, it is obvious at once that the arrangement and external form of the houses leaves much to be desired. One sees, for instance, a great number of buildings frequently huddled together, stretching in long rows of dismal sameness, with narrow streets and no green spaces. The most conspicuous imperfections are usually to be found in those congested districts, inhabited by the poor, that exist in the central parts of some large towns. But even in the suburbs where towns are expanding—in some of the outlying parts of Cambridge, for example—adjacent to open country, there are growing up with a terrible rapidity hideous unbroken tracts of undistinguishable, featureless, gardenless habitations. After a while one becomes so permeated and soaked with the enervating squalor of these drab conditions that one tends to regard it as an inevitable evil incident of town life. For people living in Cambridge, however, there is an easy way in which that impression can be cancelled. All we have to do is to visit the Garden City at Letchworth, or, if we prefer it, the Garden Suburb of Golder's Green in Hampstead. There the houses are not arranged in rows but are separate. There advantage is taken of undulations of the ground, so that, when one walks down a street, one gets a view between the houses —a view generally embracing greenery and trees. There, too, even the smaller houses are not machine-made to a pattern, but have individual character, possess gardens, and are situated near large open spaces of green. This contrast gives occasion for reflection. It reveals to us the existence of an essential element in satisfactory housing conditions of which, until recently in

[1] *Housing of the Working Class*, L.C.C. Report, 1913, pp. 103–4.

England—though things have long been different in Germany—practically no account was taken. I refer to the satisfactory *arrangement* of the various houses of which a town or village is composed. Such satisfactory arrangement, we are coming to see more and more clearly, is extremely important. It is not merely a matter of the æsthetic sense of a few superior persons. It is a matter of the character and of the health of the people as a whole—a matter, in a way, even more significant than the internal arrangements of factories, because it affects, not the workers only, but also their young children. Make your town sufficiently hideous, sufficiently congested, sufficiently void of open space and grass for children's play, and you go far to write, for character and for life, over the gate of it: "All hope abandon ye who enter here."

"Le parc," says a French writer, "rend à nos cités industrielles surpeuplées un service spirituel comparable à celui que la cathédrale, dans la grandeur et la beauté de son architecture, offrait à la population rurale du moyen âge. Le parc est la cathédrale de la ville moderne."[1]

The recognition of this third element in satisfactory housing conditions leads inevitably to the granting of powers to some authority to limit the quantity of building permitted on a given area and to control the building activities of individuals. It is as idle to expect a well-planned town to result from the independent activities of isolated speculators as it would be to expect a satisfactory picture to result if each separate square inch were painted by an independent artist. No "invisible hand" can be relied on to produce a good arrangement of the whole from a combination of separate treatments of the parts. It is necessary that an authority of wider reach should intervene and should tackle the collective problem of beauty, of air and of light, as those other collective problems of gas and water have been already tackled. Hence has come into being, on the pattern of long previous German practice, Mr. Burns's extremely important town-planning Act. In this Act, for the first time, control over individual buildings, from the standpoint, not of individual structure, but of the structure of the town as a whole, is definitely conferred upon those town councils that are willing to accept the powers offered to them. Part II of the Act begins:

[1] Benoit-Levy, *La Ville et son Image*, p. 11.

"A town-planning scheme may be made in accordance with the provisions of this Part of the Act as respects any land which is in course of development, or appears likely to be used for building purposes, with the general object of securing proper sanitary conditions, amenity and convenience in connection with the laying out and use of the land, and of any neighbouring lands."

The scheme may be worked out, as is the custom in Germany, many years in advance of actual building, thus laying down beforehand the lines of future development. Furthermore, it may, if desired, be extended to include land on which buildings have already been put up, and may provide "for the demolition or alteration of any buildings thereon, so far as may be necessary for carrying the scheme into effect." Finally, where local authorities are remiss in preparing a plan on their own initiative, power is given to the Local Government Board to order them to take action. There is ground for hope, however, that, so soon as people become thoroughly familiarized with the town-planning idea, local patriotism and inter-local emulation will make resort to external pressure unnecessary.

What has been said so far is intended to illustrate in a rough way the nature of the elements involved in the conception of a minimum standard of housing accommodation. These, as I have suggested, refer respectively to the structure and repair of individual houses, the condition of individual houses as regards overcrowding, and the general arrangement of the whole body of houses in a town or village. So much being understood, we are in a position to attack our main problem. What policy or policies is it desirable to pursue in order that the minimum standard of housing accommodation, which we adopt in theory, may also be attained in practice? This problem is, I think, often deprived of some of the illumination due to it by being treated as a thing standing apart in splendid isolation. It is true, no doubt, that the minimum standard of housing accommodation is more complex than some other minimum standards, such as the minimum standard of leisure. That circumstance, however, does not carry with it any essential difference in character. The broad outline of the practical problem is the same in regard to all our minimum standards. This fact is very important. Bearing it in mind, I propose to devote the remainder of this lecture to a discussion of the three principal methods, which, as it seems to me, are at present available

for helping forward the establishment of the desired minimum standard of housing accommodation.

I ask attention first to a policy that is relevant to many forms of minimum standard, and the beneficial influence of which is open to no dispute. The failure of poor persons to attain the level we deem to be satisfactory in the matter of nourishment, of education and of insurance, is frequently the result, not so much of poverty as of ignorance and mismanagement. Sympathy, guidance and instruction by Health visitors and others may often enable them, without any additional expense, greatly to improve their lot. A like statement is true in a pre-eminent degree of certain elements of satisfactory housing. The point to be made is this. A great part of the squalor and discomfort of certain houses of the poor is not the result of inability to pay a reasonable rent, but flows rather from the low character and the want of training of those that inhabit them. Far be it from me, by this observation, to countenance in any way that smug defence of certain landlords neglectful of obvious duties, who say: "It is useless for us to improve our cottages; if we do, the tenants will immediately convert them again into pig-styes." My purpose is quite other than that. It is to show, as the late Miss Octavia Hill so admirably showed by practical example, that there is scope for immense improvement in the houses of the poor, even now while the brute fact of their poverty continues. Miss Hill, with the help of John Ruskin, bought up some houses in a most degraded area and made herself the landlady of them. Throughout she adopted the principle that her enterprise, if it was to be valuable as a social object-lesson, must be made to pay. She fixed commercial rents and exacted them with unflinching sternness. The enterprise did pay. In her fight with the wretched conditions that confronted her, she deliberately refused to wield the powerful but double-edged weapon of money charity. The weapon that she did wield was personal influence and disinterested friendship. Every week she visited her tenants to collect the rent. She got to know them as men and women. By her personal appeal she raised their ideals of cleanliness and order. The stairways, which were the landlady's portion—for the houses were let, not as wholes, but as sets of rooms—she kept scrupulously clean, and gradually she saw the example spreading to the adjoining rooms. She let

it be known when her visits would take place, and, to please her, the tenants began to make efforts to have their houses decent when she came. Sympathy and advice she gave always, money practically never; and, as a result, the whole tone of the lives of those men and women was changed. They became her friends and lifted their ideal of living dimly towards hers. Here lies the essence of the matter. A landlady stands in a relation to her poor tenants in which there is possible immense influence upon character, and, through character, upon the condition of the home. Unfortunately, however, it often happens that the landladies of poor houses are degraded women whose influence is wholly bad. The moral is pointed by Miss Hill in her *Homes of the London Poor.*

"It appears to me," she writes, "to be proved by practical experience that, when we can induce the rich to undertake the duties of landlord in poor neighbourhoods, and ensure a sufficient amount of the wise, personal supervision of educated and sympathetic people acting as their representatives, we achieve results which are not attainable in any other way . . . I would call upon those who may possess cottage property in large towns to consider the immense power they thus hold in their hands, and the large influence for good they may exercise by the wise use of that power. When they have to delegate it to others, let them take care to whom they commit it, and let them beware lest, through the widely prevailing system of sub-letting, this power ultimately abides with those who have neither the will nor the knowledge to use it beneficially. . . . Where are the owners, or lords, or ladies, of most courts like those in which I stood with my two fellow-workers? Who holds dominion there? Who heads the tenants there? If any among the nobly born or better educated own them, do they bear the mark of their hands? And, if they do not own them, might they not do so?"[1]

The second remedial policy is a negative one. It consists in prohibition by the State of the sale of commodities unfit for human consumption. This method, as is well known, is actively employed in England with articles of food. Persons offering bad meat or bad fruit for sale are liable to prosecution, and the condemned goods to confiscation. With housing accommodation an analogous policy has been adopted. Part II of the Housing of the Working Classes Act, as slightly amended by the Housing Clauses of the Town Planning Act, provides that an order may be served on the owner of any house adjudged unfit for habitation,

[1] Loc. cit., pp. 51–2 and 39.

requiring him either to render it reasonably habitable or to close it down. If he does not render it reasonably habitable, or take steps towards doing so within three months, the local authority may demolish the house and charge the costs to the landlord. In the Town Planning Act it is also provided that, in the letting of houses adapted for the working classes, there shall be an implied contract that the house is at the start, and shall be throughout the tenancy, kept by the landlord "in all respects reasonably fit for human habitation." This obligation is enforcible by the local authority, and that body is empowered, if necessary, to execute such repairs as may be required at the landlord's expense.[1] When we have to do with a town which has always been, or has somehow become, free from houses unfit for human habitation, the adoption of this policy for the future need not involve any great difficulty. For not many houses could *become* uninhabitable in such a way that renovation was impracticable in any one year, and there would, therefore, be no danger of closing orders leading to a shortage. All that is needed is strict official supervision and inspection, such as is provided for in the seventeenth section of the Act of 1909, and in the actual conduct of which considerable progress is said, in the latest official report, to have been made in most districts of this country.[2] The problem is, however, more difficult in towns where the *initiation* of reform is confronted by the existence of a large number of houses unfit for habitation. Here the medical officers know that, if they condemn these houses, a considerable number of persons may be rendered altogether homeless. There is no analogous difficulty as regards the condemnation of bad food. At the worst, this means a *slight* contraction in the consumption of *many* people. But the condemnation of bad houses threatens a *great* contraction in the consumption of a *few* people; and this, of course, involves far greater proportionate suffering. In consequence, the scope of this negative remedy of condemnation is often found to be very narrowly limited. Its adoption on a large scale, as a means of abolishing the accumulated slums of the past, is rarely likely to be practicable except in association with some positive policy for the provision of new houses.

[1] *Local Government Board Report for* 1912–3, p. xxviii.

[2] Cf. Memorandum (No. 3) on the *Operation of the Housing, Town Planning, etc., Act*, 1909. [Cd. 7206.] P. 2.

What has been said will have made it plain that both the two policies we have been considering are, in their place, valuable means of improvement. Advice and help to poor persons in the art of keeping their houses in a good state—like instruction in the art of cooking—and the condemnation of uninhabitable houses —like the condemnation of diseased meat—may accomplish no small amount of good. By themselves, however, they cannot establish everywhere the desired housing minimum. The root difficulty remains. When all that can be done has been done, there must still be many persons who, if abandoned to their own unaided efforts, cannot afford to purchase that quantity and quality of housing accommodation which the general judgment of the country declares to be a necessary minimum; they are unable, in fact, to offer enough rent to induce builders to provide them with respectable dwellings. Sometimes, no doubt, this inability may not be absolute, but may be due to the fact that they attach an unduly low importance to housing accommodation as contrasted with other objects of expenditure; and, when this is the source of the evil, it may be feasible, by rigid inspection and so forth, to compel them to spend more on housing, just as it may be feasible to compel them to spend more on insurance, without forcing down their consumption of other things below the accepted minimum standards. Very often, however, inability to afford the price of decent housing is not susceptible of this simple remedy. It arises, at least in part, from the fact that the ill-housed workman's income, however well it may be expended, is insufficient to give command over the various sorts of minima which we deem it proper he should attain. This is the dominant difficulty with which housing reformers are faced. It is not—let me emphasize the point—specially or peculiarly a *housing* difficulty. Just as many persons cannot afford, without falling short of what is required elsewhere, to purchase a reasonable minimum of housing accommodation, so also they cannot afford to purchase a reasonable minimum of food or of education or of medical attendance. The failure with which we are confronted is the general fact of poverty, whereof inadequate housing is merely a manifestation. Furthermore, that general fact, it is perhaps well at the present time to observe, would still remain, even though Parliament were to set up and enforce a national minimum wage effectively higher than

many present wages. I shall not attempt here to answer the difficult question whether the establishment of such a wage is or is not, on the whole, desirable. But, however that question be answered, it is certain that its establishment would not secure the universal prevalence of adequate earnings. For earnings depend, not on the wage level alone, but on the wage level coupled with the amount of employment; and the setting up by law of a wage-rate superior to that which many persons can command in a free market could not fail to act injuriously upon the employment they obtain. Whether or not, therefore, an effective legal minimum wage is established, the fundamental difficulty, that the earnings of many persons are inadequate to the totality of their reasonable needs, still calls for a solution. We are thus led forward to the consideration of a third policy, additional to the two already discussed, which is relevant to the minimum standard of housing accommodation—the policy, namely, of State aid towards the housing of the poor.

It is plain that, if the public authorities choose to give what is, in effect, a bounty on the production of any commodity largely consumed by poor persons, and so to enable that commodity to be bought by them below cost price, a number of people, who would otherwise have failed to reach one or more of the minimum standards that have been set up, may now succeed in reaching them. This statement is true equally whether the commodity sold to the poor at less than cost is house accommodation, or clothes, or food, or anything else that they are accustomed to buy: and it is also, of course, true equally whether the bounty takes the open form of a subsidy to production by private enterprise, or the concealed form of production at a loss by the public authorities themselves. In the current practice of the United Kingdom such subsidies are not given as regards articles of food and clothing, but they are given as regards education, insurance against sickness, and insurance against unemployment. In Ireland, under the Irish Labourers' Act, they are also given, in substantial measure, as regards housing. Is the policy of giving them in that regard on the whole desirable? That is our final problem.

Before this question can be discussed satisfactorily, it is necessary to clear the ground of an important and widely prevalent misconception. Popular writers often imply that the experience of

the old Poor Law has condemned once and for all every form of public assistance to poor persons, except such as is given under disciplinary and deterrent conditions. The provision from national funds, whether in whole or in part, of education, of insurance premiums, or of housing accommodation, is denounced on the ground that it constitutes relief in aid of wages, and is, therefore, a reversion to the discredited policy of Speenhamland. This is a mistaken view. It ignores the fact that the root evil of the old Poor Law lay in the circumstance that the subsidies which it granted depended directly upon, and varied inversely with, the wages paid to the recipient, thus creating a direct temptation, on the side of the masters, towards cutting wage-rates, and, on the side of the men, towards idleness. Subsidies, the amount of which, as paid to separate individuals, varies, not inversely with their earnings, but directly with the quantity of their purchases of some commodity, are wholly different from the subsidies of the old Poor Law. Condemnation of the administration of that law has, therefore, no relevance to our present inquiry. The policy of attacking the housing problem with the weapon of State aid does not involve a reversion to rates in aid of wages of the old evil kind, and cannot be dismissed on the authority of experience. It requires, on the contrary, to be examined carefully on its merits.

One further preliminary observation, concerning which no dispute will arise, may conveniently be introduced here. *If* it is decided to confer a bounty on the provision of housing accommodation for the poor—to provide houses for them, as it is sometimes said, at less than an economic rent—that bounty should not be so arranged as to differentiate in favour of an anti-social distribution of population. There is reason to believe that, in most large towns, the play of economic forces tends to concentrate population more closely than is socially desirable in the central districts. Bounties, therefore, if given at all, should be given in such a way as to counteract, or, at all events, not in such a way as to emphasize, that tendency. This seems sufficiently plain. None the less for a long time, the law in some cases enforced, and the London County Council in yet other cases pursued, a line of policy, in which the considerations I have just explained were wholly ignored.[1] Perceiving that the high cost of land in the

[1] Cf. *Housing of the Working Classes*, L.C.C. Report, 1913, pp. 115.

centre of London made the rents at which workmen's dwellings could be let there abnormally high, the County Council built houses there, wrote off the difference between the commercial value and the value for working-class dwellings of the sites, and offered the houses for hire on terms which involved, in effect, the payment of a heavy subsidy from the ratepayers to their tenants. No corresponding subsidy was given in respect of houses situated in the outlying districts. The result was the same as if food had been offered on special terms to those poor persons who agreed to live in the central parts of London. Working people were, in effect, paid money upon condition that they would occupy sites which, as their market value showed, it was to the national interest to turn to quite other uses. The anti-social congestion of the centre was thus made worse than it would naturally have been. It needs little reflection to perceive that a bounty differentiating in favour of such congestion is the worst possible form of bounty. If differentiation is introduced at all, it should favour dispersion, whether directly by way of grants towards the building of cottages in the outer ring, or indirectly by the subsidizing of cheap workmen's trains and trams. This point of view was embodied in the Cheap Trains Act of 1884, which compelled the provision of workmen's trains to and from the London suburbs, and, conditionally upon the required trains being provided, remitted the passenger duty on all fares of less than 1*d.* per mile. A similar standpoint is adopted by the London County Council in the management of its tramway system. In 1911 there were 1,684 workmen's cars running daily, with a mileage of 17,928 miles per day.[1]

After all, however, this matter of differentiation is a subordinate one. The fundamental question as to the wisdom or otherwise of *properly arranged* subsidies upon the housing accommodation offered to the poor still remains to be faced. Ought housing accommodation to be treated as education and insurance are now treated, or ought it to be left, like food and clothing, without the support of any subsidy? I myself approach this question with a major premise that some would dispute. I believe it to be right that the well-to-do should be summoned by the State to help their poorer neighbours whenever that summons can be enforced without evoking gravely injurious reactions upon the production

[1] *Housing of the Working Classes*, L.C.C. Report, 1913, p. 108.

of wealth and, therewith, ultimately upon the fortunes of the poor themselves. In view of the fact that good conditions of life undoubtably increase the industrial efficiency of those who enjoy them, State assistance—granted always that it is so arranged as to avoid directly tempting workers into idleness—might, I think, be given in considerable measure before any such injurious reactions were set up. This proposition seems to me to hold good of State subsidies upon education, insurance, housing, food and clothing equally. No decisive objection *in principle* can be established against any of these things. There are, however, very important difficulties of detail, the weight of which varies with the nature of the things that it is proposed to subsidize. First, if an attempt is made to help poor persons by a bounty on some particular thing, part of the bounty money may be shared by well-to-do purchasers of that thing, and so, in a sense, wasted. Bounties on articles of food are obviously open to this objection. With elementary education and health and unemployment insurance it is, however, not very difficult to confine bounty payments to the purchases of persons with small incomes. If bounties on house-building are restricted to houses of certain types and of less than a certain value, they can be brought in this respect into the same class as bounties on insurance, and they have an advantage over bounties on food. Secondly, a bounty on any particular branch of expenditure is *prima facie* objectionable, because it diverts productive power away from its natural channels. Thus, if a man is given £50 a year in the form of a bounty on certain specified things, he will be led to distribute his expenditure among the various things competing for it in a different way from what he would do if he were given £50 in the form of a straight grant. But, in the absence of special evidence to the contrary, there is a presumption that, if his choice is uninfluenced, he will make a better use of his money than he would do under outside pressure. This presumption *may* be overthrown. There are grounds for believing that most people underestimate the real importance of elementary education and of insurance, and that, therefore, an artificial stimulus towards buying these things will do good. This is certainly not true about food and drink. House accommodation stands somewhere between these two groups. Lastly, the question whether it is on the whole desirable to give a bounty

on a particular thing depends in part on matters of technique. Elementary education is provided through a comparatively small number of separate centres and, in the main, by the direct action of public authorities. The administrative problem of organizing a bounty in respect of it is, therefore, not very difficult. Much the same can be said of sickness and unemployment insurance. With the provision of houses for poor persons things are, however, less easy. The task of building houses is not generally one for which public authorities are well suited.[1] Private enterprise ought not, therefore, to be discouraged by the grant of public aid towards the cost of houses erected by town councils unaccompanied by the grant of similar aid towards the cost of those erected by private enterprise. Plainly, however, to arrange for the payment of subsidies to the large number of separate private persons who are concerned in the building of small houses is an exceedingly large task and one in the conduct of which abuses could hardly fail to arise. These considerations leave no room for doubt that the policy of subsidies in aid of the housing of the poor is open to serious practical objections. For my own part, however, I am not convinced that these objections are incapable of being overcome. At least, it is clear that carefully drawn schemes of State assistance towards the housing of the poor ought not to be condemned out of hand. They deserve, if not support, at least sympathetic consideration.

[1] On the relative advantages of public *versus* private building Mr. Nettleford has some very weighty remarks :—" The housing question is very largely a personal question, and cannot be successfully dealt with in the wholesale fashion which is the only way possible when Local Authorities insist upon themselves building the actual houses required, instead of being content, and wisely content, to encourage others to build houses on proper lines, keeping themselves free to supervise and control what is done, which is after all their first and most important function " (*Practical Housing*, p. 116).

XII

THE REPORT OF THE ROYAL COMMISSION ON THE INCOME TAX[1]

As a preliminary it is desirable to make clear what the business of the Royal Commission on the income tax was. It was not appointed to survey the whole tax system of the country. It had not to weigh income tax against death duties or tea duty. It had not to examine the comparative advantages of a high income tax as against a capital levy or a special levy on war wealth. Its function was a much more limited one. Taking the income tax as it is and assuming that the amount of money raised by it at present will have to be maintained, how can the various anomalies and unfairnesses and complications of the tax, which have necessarily grown up with its growth, be best cured or palliated, so as to make this tremendous engine of revenue—probably the most powerful that the world has ever known—more equitable and less burdensome, but not less effective, than before?

The question which presents itself first in logical sequence is: What exactly should be included in the object "income," on which income tax is assessed? To the uninitiated this may seem a perfectly simple question. In reality it is an extraordinarily difficult one, and one which, in a number of different connections, has given rise to perplexing problems.

First, there is a difficulty arising out of the relation between money income and real income. There is no substantial difference between the real income of service which is provided when a wife cooks for her husband and when his housekeeper cooks for him; but the housekeeper's cooking is associated with a money

[1] From the *Quarterly Journal of Economics*, August, 1920. The main part of the recommendations discussed in this article has been adopted by Parliament, the standard rate of tax being, however, now (1923) 4*s.* 6*d.* instead of 6*s.* The 'existing law' of the text is not, therefore, the law that exists now (1923).

income, namely the payment the housekeeper receives, while the wife's cooking is not. Again, if a man owns a house and lets it, he receives a money income, with which, if he likes, he can hire similar house accommodation for himself elsewhere; but, if he lives in his own house, he gets no money income from it. Yet again, one official is paid a small salary and is allowed board and lodging by his employer, another exactly similar official is paid a large salary and no board or lodging. There is no difference between the real incomes of the two men. Plainly the fundamental thing is real income. When money income does not correspond to this, it is real income, and not money income, on which the amount of a man's income tax ought to be made to depend. In theory this is obvious. But in practice it can only be very partially achieved, because real income not represented in money is often extremely difficult to evaluate. When a man occupies his own house, English income tax law assumes that he enjoys from it a real income represented by the money income he could get by letting it, and taxes him accordingly. But it does not do this with his furniture or his yacht or his motor-car. Broadly, we may say, it is compelled by practical considerations to base itself, not upon real income, but upon money income, departing from this rule only in the special case of houses and lands. The Royal Commission, in the main, accept this ruling; but they suggest that an attempt might be made, when a part of the regular remuneration of an employment is received in kind, to bring this remuneration within the scope of the tax.

Secondly, there is the distinction between gross income and net income. It is plain that the proper object of an income tax is net income, and that, when charges are incurred in the process of obtaining income, these should be allowed for before assessment is made. Thus, the cost of tools and special clothes are allowed as expenses. But it is not clear how far this kind of allowance should be extended. In a sense a man's expenditure on food and ordinary clothing constitutes a part of the expenses of earning an income; for, if he did not eat and clothe himself, he certainly would not earn anything. But it has generally been agreed, and the Commission propose no change, that the only expenses allowed should be those incurred in immediate and special connection with the work from which income is derived.

Closely allied to the distinction between gross income and net income is the more difficult distinction between income and capital. Income tax is a tax on income, in which no account is supposed to be taken either of accretions to, or of losses from, capital. The line is very difficult to draw. When machinery is used up in two or three years in producing the income of those years, is the wearing out of the machinery a capital loss or is it an offset to gross income, to be allowed for before net income is calculated? If depreciation of machinery is allowed for, what of depreciation of buildings; of obsolescence; of mine-shafts; of wasting assets generally? Under this head very difficult questions have to be decided. The Royal Commission recommend that the practice of allowing for capital wastage when it is the necessary concomitant of income production shall be carried somewhat further than it is at present; but they do not advise that the full claims put forward in respect of various sorts of wasting assets should be conceded.

There remain some difficult questions connected with receipts accruing, not regularly, but more or less casually:—are these income, and so properly amenable to income tax, or are they capital?—and other questions, about which there has been much dispute, concerning the income of persons grouped together in co-operative societies and insurance companies. I do not propose to discuss these matters now. The recommendations which the Commissioners make in connection with them, though important, are not fundamental to the general scheme of their report. Broadly speaking, they have left the scope of the income tax and the general conception of income for income-tax purposes substantially where they found it. I pass on, therefore, to matters of more general interest.

The British income tax, apart from its treatment of local authorities, is in intention and in effect a tax upon the income of natural persons. So far as it strikes companies, it strikes them as agents for the natural persons of whom they are formed; and, apart from undistributed profits, of which I shall say something presently, these persons are entitled to claim a return from the revenue authorities if the rate of tax levied on their money in the hands of a company has exceeded the rate to which they are themselves properly liable. This being so, it is necessary, before any-

thing further can be done, to decide what, among natural persons, is the proper unit of assessment. In the income tax hitherto that unit has been, for unmarried persons the individual, for married persons the married couple. There has been for a long time a confused complaint going on about this. Partly it has turned on points of sentiment. Certain militant ladies have complained that it is intolerable that their husbands should fill in their income tax forms for them, apparently ignorant of the fact that the existing law allows them, by a perfectly simple process, to secure this very troublesome privilege for themselves. But there is also a complaint of substance. Since the rate of tax is higher on a £1,000 income than on a £500 income, the practice of assessing the joint income of a married couple means that, if two people, each with £500 *per annum*, marry, the amount of taxation taken from them after marriage is greater than it was before; and this is called a penalty on marriage. It is even called deliberate encouragement by the State of illicit unions outside the marriage bond. On the other side there are three facts. First, under the existing social system, for the great bulk of the population the incomes of husband and wife constitute a common purse for the ordinary purposes of life. Secondly, the cost of living to two married persons living together is less than the sum of the costs to a man and woman living separately; so that, all other things being equal, a married couple has a greater ability to pay taxation than the two members of it had jointly before they were married. Finally, there is this fact. A married couple made up of a husband with £1,000 a year and a wife with nothing obviously has the same taxable capacity as one made up of a husband and wife each with £500 a year. Under the existing system of joint assessment they are in fact taxed equally. Under the rival system of separate assessment, since income tax is charged at a higher effective rate on larger than on smaller incomes, the aggregate taxation for a married couple with £1,000 a year would vary widely according to the way in which that £1,000 a year is contributed by the two spouses. It would be largest when one spouse contributed the whole and would become smaller and smaller the more nearly the two contributions approached to equality. This is plainly unreasonable. Moreover, it would be very difficult to prevent transfers of income between husband and

wife so arranged as to reduce their joint burden of taxation to a minimum; and this would mean an enormous loss of revenue. The Royal Commission decided with practical unanimity that the existing system ought in substance to be maintained. This does not, of course, mean that equal incomes belonging to a bachelor, a childless married couple, and a married couple with three children, will all have to bear exactly the same taxation. All that it means, as will become apparent shortly, is that for married persons the *basis* of assessment shall be the amount of their joint income, so that the tax burden is the same however the income is divided between husband and wife.

The next issue is the exemption limit. It has always been recognized that people with incomes below a certain minimum cannot properly be called upon to pay income tax. Before the war the limit was £160. During the war it was reduced to £130; but the effect of this reduction was largely offset, for persons other than bachelors or spinsters, by the operation of (new) wife's allowance and children's allowances. The evidence given before the Commission made it clear that the effect of these allowances upon the actual, as contrasted with the nominal, exemption limit, has not been properly understood. The Commission, therefore, attached some importance to a change of nomenclature. Instead of speaking of a single exemption limit of so much, associated with various allowances, they proposed that it should be laid down in clear terms: the exemption limit for a single person is so much; for a married couple without children so much; for a married couple with one child so much; for a married couple with two children so much; and so on. They held that, if this were done, many misunderstandings would be wiped out, and many discontents felt with the income tax system, which exist purely in consequence of these misunderstandings, would be removed. There remained the point of substance: at what figures should the exemption limit for the various categories of persons whom I have distinguished be fixed? Plainly this is not an issue which can be settled by any kind of rigid demonstration. Account must be taken, so far as is practicable, of the incidence of indirect taxes upon persons with small incomes; of the large changes which have recently taken place in the purchasing power of money; of the immense change that has taken place in the

amount of revenue that the State needs to raise; of how far the country can afford, economically and politically, to leave large sections of the population outside the scope of direct taxation; and so on. These are the sort of considerations upon which, by a rough process of guesswork and of judgment, any decision must be built. The conclusion of the Commission is that, in present conditions, the following limits of exemption for persons with wholly earned incomes are appropriate:

for a single person, £150;
for a married childless couple, £250;
for a married couple with one child, £290;
for a married couple with two children, £320;
for a married couple with three children, £350,

and for each additional child a further addition of £30. When income is partly unearned, the corresponding exemption limits should be somewhat lower, a £ of unearned income being counted, in effect, as equal to $\frac{10}{9}$ths of a £ of earned income.

This leads naturally to my next point. Since 1907 a distinction has been drawn in the British income tax law between earned income and unearned income. The latter, which the Royal Commissioners suggest might be better named investment income, consists roughly of all income derived from property, and the former of all income derived from personal exertions, including the whole of the income which the owner of a business under his own management receives from that business. Since 1907, except when a man's aggregate income exceeds £2,500, unearned income has been taxed at a somewhat higher rate than earned income. Some people have taken the view that this distinction ought no longer to be retained. They point out that it leads, among other things, to the anomaly that, if a private person turns his business into a joint-stock company, while still in effect remaining the sole owner of it, a large part of his income, which has hitherto been "earned," will now become "unearned," and will be taxed at a higher rate. They urge further that, if any distinction is made, it is illogical to rest content with one so rough that it treats in the same way income from a man's own savings and income from inherited property. Moreover, they add, discrimination against the fruit of investment is bound to prove

prejudicial to saving. There is, of course, considerable force in these objections. But on the other side there is the broad fact that, ordinarily speaking, a man whose income depends on his own life and exertions must necessarily save more against the future, and, therefore, has less taxable capacity, than a man with an equal income derived from investments. The Royal Commissioners were of opinion that this consideration is decisive. They held that differentiation between earned and unearned income should continue; but, in view of the recent increase in death duties, which are, in effect, a kind of deferred tax on unearned incomes, and of the increases proposed by themselves in family allowances, they decided that the amount of differentiation might properly be reduced in a small degree.

Having come to this decision, they had next to determine by what method the required differentiation could best be secured. Hitherto this has been done by making each of the several rates that are applied to different ranges of income below £2,500, less by 9*d.* for earned than for unearned income. This arrangement has involved a very serious anomaly. Suppose a single man with an income of £240. Under the existing law that man is entitled to an abatement of £120. But, when part of an income is earned, the abatement must be made from the whole of the earned income before it is made from any of the unearned income. Thus, a man with £240 of unearned income is taxed to exactly the same extent as a man with £240 of income, half of which is unearned and half earned. Nor could the difficulty be got over by allowing the abatement to be made from unearned income in the first instance: for, if this were done, a man with £240 of wholly earned income would be taxed the same as one with £240 of the two sorts mixed in equal proportions. This means, in effect, that the privilege of a special rate for earned income is not extended to those owners of small amounts of earned income who may reasonably be supposed to need it most. This paradox—which has, of course, a much wider range when account is taken of married couples with families as well as of single persons—would be obviated if abatements were drawn from the earned and the unearned parts of mixed incomes in proportion to the amounts of these parts. But this, implying, as it does, a knowledge of the exact amount of both sorts of income before assessment is made, would involve great

practical difficulties of a kind to which attention will shortly be drawn in another connection. The way out, which the Royal Commission suggest, is that, up to £2,000, each £ of earned income shall be treated as the equivalent of $\frac{9}{10}$ths of a £ of unearned income, and that all assessments shall be made upon this basis.

Adjustment of tax to the different natures of two incomes of equal amount is not the only, or the most important, adjustment that fairness requires. An income that has to support a husband and wife, still more an income that has to support a husband and wife and three children, has not the same taxable capacity as an equal income belonging to a bachelor. This fact is recognized in the existing law by the provision, for small and moderate incomes, of abatements in the shape of wife's allowance and children's allowances. These allowances are justified by the same considerations that justify the establishment of higher exemption limits for family men and childless married couples than for bachelors or spinsters. But, with the exemption limit, as with the allowances, to determine the exact figure that is appropriate is a very difficult matter. From one point of view it may be argued that, the poorer the man is, the more help he needs, and, therefore, the bigger the allowance he should get for wife and children. On the other hand, it may be answered that a rich man's wife and family in fact cost him more to maintain than a poor man's; and that, if the difference in taxable capacity between a bachelor and a man with three children when the income is £500 is equivalent to, say, £200 of income, the difference at an income level of £2,000 must be very much more than this. It has even been urged in some quarters that the income of a man with a wife and three children, whatever its amount, should be taxed as though it were five incomes each of one-fifth its size. On this plan, with the existing scale, a married couple with three children would pay no income tax at all up to an income of £650, and would pay no supertax up to an income of £12,500. The Royal Commission have taken the view that the difference in the amount of income tax levied on single persons, married couples, and married couples with children should be decidedly greater than it is at present and should not be confined, as at present, to the lower ranges of income. They recommend that, for purposes of income tax, as distinguished from supertax, an abatement should be made from all incomes, before

taxation is imposed upon them, equal to the amount of the exemption limit which has been fixed for each several category of persons. Thus, in terms of earned income, for bachelors and spinsters there would be an abatement of £150; for married childless couples, of £250; for married couples with three children, of £350; and so on.

In these last sentences I have partly anticipated my next point. Under the existing law no differentiation is allowed in respect of any part of incomes that exceed £2,500, and no family allowances are given to incomes above £1,000. This arrangement is not easily defended. It is not a question of giving rich people privileges as compared with poor people, but of adjusting the burden fairly within each income class between people whose situations are different. A man with £3,000 whose income is wholly earned has not the same taxable capacity as his neighbour with an equal income all derived from the funds; still less has the £3,000 man with a large family the same taxable capacity as the £3,000 bachelor. The Royal Commission recognize these facts. But they also recognize another fact, namely that, though in all income classes the man with earned income and the family man have less taxable capacity than the man with investment income and the bachelor, yet, as incomes get bigger, the proportionate taxable capacities of the different classes come closer together. Thus, if at the £500 level a man in family situation A has half the taxable capacity of a man in family situation B, at the £50,000 level he will have much more than half the taxable capacity. A millionaire with three children might reasonably be called upon to pay very nearly 100 per cent. of what the millionaire bachelor pays. The Royal Commission have endeavoured to adjust their recommendations to these considerations by providing, first, that relief for "earnedness" of income shall only apply to the first £2,000 of any earned income, but that this relief for the first £2,000 shall be accorded to all incomes, whatever their size; and, secondly, that the abatement for "marriedness" and "familyness" shall be extended to all incomes of whatever size. With the figures which the Commission recommend, this means that a bachelor with £2,000 earned income will pay £60 less tax than a bachelor with £2,000 unearned income, and that a bachelor with £20,000 earned income will also pay £60 less tax than a bachelor with

£20,000 unearned income. This £60 is between $\frac{1}{8}$th and $\frac{1}{9}$th of the unearned £2,000 man's tax, but it is only a little over $\frac{1}{100}$th part of the £20,000 man's tax. In like manner, the Commission's recommendation about family allowances means that, at the £600 level a man (with only earned income) who has a wife and three children pays £54 less than a bachelor; and that the £20,000 family man also pays £54 less than the bachelor. At the £600 level the relief for the family man is thus about 60 per cent. of the bachelor's tax; but at £20,000 it is less than $\frac{1}{100}$th part of that tax.

I now pass to the difficult subject of graduation. The general principle that large incomes should contribute to income tax in larger proportion than small incomes is not now disputed by anyone. Nor did the Commission feel it necessary to revise in any fundamental way the general relations between the amounts of burden borne by different income classes under the existing law. But the existing law contains very grave defects of detail. Graduation is effected by means of a combination of abatements, the amounts of which differ for different incomes, of six different rates of tax applicable to six income zones under £2,500, and of supertax at progressive rates on larger incomes. Under supertax for the larger incomes there is a charge of 1*s.* in the £ on the first £500 above £2,000, 1*s.* 6*d.* on the second £500, 2*s.* on the second £1,000, and so on. This system evidently provides a smooth and continuous progression. But for incomes below the supertax level progression is made by jumps. For example, an unearned income of £1,500 is charged at the rate of 4*s.* 6*d.* in the £: but an unearned income of £1,501 and upwards at 5*s.* 3*d.* in the £; the corresponding earned incomes being charged 9*d.* in the £ less. Unless special provision were made to obviate it, the result would be that a man who increased an income of £1,500 by £1 would have to pay £55 10*s.* 3*d.* more taxation! The remedy provided for this under the present law is to allow a person in this position to hand over to the State the whole of any excess income he may have above £1,500 and then to pay on £1,500 at the £1,500 rate. This arrangement saves a man whose income is increased by a small amount above £1,500 from being actually worse off than before. But it means that any addition made to his income, until this reaches £1,576 5*s.* 6*d.*, leaves him no better off than he

was before. In short, it means that, for incomes between £1,500 and £1,576 5*s*. 6d., the slice of income above £1,500 is taxed at the rate of 20 shillings in the £. The same kind of thing happens at all the other points in the income scale where the rate of tax changes. This is intolerably unfair. *Some* remedy is imperatively needed.[1]

At first sight it would seem that nothing could be simpler. Why not apply the supertax method to all incomes, taxing each £ of the first £100 so much, each £ of the second £100 so much, and so on throughout? Or why not have a perfectly continuous scale under some mathematical formula, with separate rates for all possible quantities of income? This is the natural thing to suggest; and, since it gives complete freedom in the adjustment of rates, it is plainly, if it can be worked in practice, also the right thing. But here we come up against one of the limiting conditions of the problem. The supertax method, or any formula method, requires that the Administration shall know the *exact* total of a man's income before it can assess him. A great many incomes are made up of parts, some of which accrue in one place and some in another. Under the existing law, if we know that a man's total income lies clearly within the range of, say, £1,000 to £1,500, any bit of income that he gets outside his main business can be taxed straight off at the 4*s*. 6*d*. or, if it is earned, the 3*s*. 9*d*. rate. There is no need to know what he is receiving elsewhere. But under the supertax plan or a formula plan it would be impossible to assess these outlying incomes till the exact amount of the whole income was known. Moreover, if for any reason the assessment of any one part of a man's income had to be altered during the year, if, for instance, a house belonging to him became unoccupied, the appropriate adjustment for this could not be made without reference to the exact details of all the other parts of his income. The official witnesses and other experienced persons before the Royal

[1] At first sight it might seem that a scale with large jumps in it must, besides being less equitable, also be more discouraging to work and saving than a smooth scale with the same general trend. It should be observed, however, that, while a smoothing of the scale will greatly reduce the rate which men in jump regions have to pay on any additional income they may secure, it will, as a set-off against this, somewhat increase the rate at which the more numerous men in the non-jump regions of the old scale have to pay on such additional income. With a given general shape of scale it is *impossible* by any device to do away with high marginal rates in jump regions without increasing the marginal rates elsewhere.

Commission laid very great stress upon these difficulties. For the small number of incomes above the supertax level they can be, and have been, got over: but to get over them for all the millions of incomes that have to be assessed to income tax throughout the country, would, we were very definitely told, constitute a task beyond the powers of the Inland Revenue authorities. That being so, some other method of graduation, not open to these objections, had to be found.

It is easily seen that graduation of a kind is achieved under a single rate of nominal tax if an equal abatement is made from all incomes before the rate is applied. For example, if the nominal rate is 6*s.* and the abatement £150, the effective rate on an income of £200 is 1*s.* 6*d.*, on £300 3*s.*, and on £2,000 about 5*s.* 7*d.* Is it possible, by a simple scheme of abatement, to secure a graduated scale of tax substantially in accord with the present scale, but free from the jumps by which this scale is spoiled? A few trials with figures will make it plain to anyone that, with one rate and one abatement, this is not possible. The effective rates in the upper part of the scale could not be made high enough without those in the lower part being made too high. But by using two rates and one abatement the Commission have found that it is possible. Their plan is as follows. First, as I have already indicated, each £ of earned income up to £2,000 is to be converted into $\frac{9}{10}$ths of a £ of unearned income. Then an abatement (expressed in unearned income) is allowed to each man according to his family status: £135 (equivalent to £150 earned income) for a bachelor, £225 (equivalent to £250 earned income) for a childless married couple, and so on. On the whole balance of income above the abatement, an income tax of 3*s.* in the £—half the standard rate—is imposed. For all incomes that exceed the appropriate abatement *plus* £225, the balance above the said abatement *plus* £225 is subjected to a surtax of 3*s.* in the £. On incomes in excess of £2,000 there is imposed further taxation on the existing supertax plan. A study of the diagrams published by the Commission will show that these arrangements provide a smooth scale in accordance with the general trend of the existing scale. Of course by varying the abatements and the rates and the point of impact of the surtax, other graduated scales could be obtained. From the standpoint of equity the scheme proposed (and now adopted by the Chancellor

of the Exchequer in his Budget) has great and obvious advantages over the existing scheme.

From the standpoint of administration it is simple and easily worked. Consider, for example, a married couple with three children, the whole of whose income is earned. If the income is known to be below £350, no tax at all is levied. If it is known to be between £350 and £600, an abatement of £350 is allowed, and all the rest of the income (multiplied, because it is earned, by $\frac{9}{10}$ths) is taxed, wherever it falls for assessment, at 3*s*. If the income is known to exceed £600, an abatement of £350 is allowed as before, the next £250 is taxed at the rate of 3*s*. (multiplied by $\frac{9}{10}$ths) and the whole of the remainder at 6*s*. (multiplied by $\frac{9}{10}$ths): or, to put the same thing in other words, an abatement of £475 is allowed, and the whole of the balance, wherever it accrues, is taxed at the rate of 6*s*. (multiplied by $\frac{9}{10}$ths). Thus, instead of having, like the present scheme, four critical points below £2,000 at which the nominal rate changes, and in the neighbourhood of which therefore there is special temptation to falsify returns, the proposed scheme has only one critical point. Simplicity and convenience of administration could hardly be carried further. It is true that, to make the scale work properly, it has been necessary to apply the supertax method of assessment to incomes between £2,000 and £2,500 as well as to those above £2,500; and this will mean extra work for the revenue authorities. But the work added there is almost certainly less than that saved on the main body of incomes. Every one has always known that income tax graduation could be made more satisfactory if we were prepared to pay a sufficient price in administrative difficulty. The Royal Commission has devised a plan which makes graduation more satisfactory, and at the same time makes administration, not more difficult, but actually easier than it was before.

One other matter calls for notice in connection with this subject. A root principle of the English income tax is that collection should be made so far as possible at source. This means that, when a man has income from, say, shares in a company, the income is taxed in the hands of the company at the standard rate of 6*s*. If the man is not liable to an effective rate so high as 6*s*., he is entitled to have his actual payment adjusted to what that payment ought to be; if he is liable to more than 6*s*., he has to make a direct

payment of supertax in addition to the tax that has been deducted at the source. In its main features this system works exceedingly well, and the Commission is strongly of opinion that it ought not to be changed. But a difficulty arises in connection with that part of a company's profits which is not distributed among the shareholders but is turned over as an addition to the capital of the company. This money is, of course, money belonging to the shareholders, which they collectively choose to reinvest in their business. Properly speaking, therefore, such part of it as belongs to each individual shareholder ought to be taxed at the rate to which that shareholder is liable. But to do this would be administratively impossible. Consequently, the whole sum is, in fact, taxed at one rate, namely the standard rate of 6*s*. This arrangement involves some unfairness to those shareholders who are liable to less than the standard rate; though it will be noticed that the number of people to whom this unfairness extends will be very much diminished when the Commission's plan of graduation is carried through. Whereas at present all shareholders liable to an effective rate of less than 6*s*., namely all those with (unearned) incomes below £2,000, pay too much, under the Commission's plan only those who have no income liable to surtax, namely bachelors with less than £360 (unearned) and family men (having three children) with incomes of less than £540 (unearned), will pay too much. There is, however, from the point of view of the Revenue, a more serious difficulty. Rich persons liable to supertax escape supertax on that part of the income belonging to them which goes, in the form of undistributed profits, into the capital of companies in which they have holdings. There is plainly no reason why the money they invest in this way should be treated more leniently than the money they invest in other ways. Moreover, there is evidence that deliberate use has been made of this loophole, by means of one-man companies and the like, to enable some rich men to escape practically their whole supertax liability on such part of their income as they do not wish to spend. It is extraordinarily difficult to devise a satisfactory means of dealing with this difficulty. The Commission do not profess to have dealt with it completely. They recommend, however, that "when the assessing authority is satisfied that the profits of a company, or a portion of them, are retained undistributed or are distributed

as bonus shares for the purpose of avoiding or diminishing the liability of its shareholders to supertax, the income of those shareholders may be treated as if the profits, or a portion of them, had actually been distributed as an ordinary dividend."

In this brief account I have, of course, made no attempt to cover the whole ground of the Royal Commission's report. In particular I have said nothing about the problem of double income tax, when the same income is subject to the taxing officers of more than one country ; nothing about the average system ; nothing about the machinery of administration ; nothing about the one matter (the taxation of co-operative societies) on which I, in company with others, took a different view from the majority of my colleagues. I have preferred to give a fairly full account of those parts of the report in which the majority of people are likely to be more interested rather than a scrappy summary of the whole. Whatever may be thought of the recommendations of the Commission, there can be no doubt that, in the report and in the volumes of evidence on which it is based, there is a mass of raw material for the student of income tax principles and methods. He may even, if he so chooses, discover in these records hints of devices by which he himself may evade payment to the Revenue of moneys that are properly due !

XIII

INCOME TAX AND CO-OPERATIVE SOCIETIES [1]

The proposals of the Royal Commission on the Income Tax in regard to the assessment of co-operative societies raise issues which are interesting both theoretically and practically. It is convenient to discuss the problem in two divisions. First, I shall assume that the proper object on which to assess an income tax is money income or money profit, and shall inquire what part, if any, of the receipts of co-operative societies, in fact, are money profit. Secondly, I shall inquire whether, in the special case of co-operative societies, it is desirable to bring under review, besides money income, other elements the assessment of which would impose on them a further burden.

What part, then, of the receipts of co-operative societies is money profit and, therefore, properly assessable on the assumption that money profit and nothing else is the thing to tax? Much the most important part of this question concerns the *status* of the net proceeds of transactions of sale between co-operative societies and their own members. Representatives of private traders maintain that the whole of these net proceeds constitute a (money) profit: the majority of the Royal Commission on the Income Tax maintain that that part of them which is retained by the societies and not distributed in the form of dividends on purchases constitutes a profit; and the representatives of the co-operative societies maintain that no part of them constitutes a profit.

Those who contend that even that part of the proceeds of mutual trade which is returned to members as dividends on purchases constitutes a profit are up against the awkward fact that

[1] From the *Economic Journal*, June, 1920.

co-operative societies have the power, if they choose, instead of selling to their members at market prices and returning to them a dividend on purchases, to sell to them at prices reduced by an amount nearly equivalent to the "divis." and to pay no "divis." The existence of this power not only makes it plain that, from the point of view of the revenue, taxation of "divis." would be a futile proceeding, but it also puts in clear light the essential nature of those "divis." They are, in essence, not a profit in the ordinary sense of that term, but a refund made from an over-charge. It has, indeed, been argued in some quarters that, though this conclusion is valid as regards an association of neighbours clubbing together, say, for the purpose of jointly providing themselves with coal, it is destroyed, for the co-operative societies of to-day, by the fact that they sell to their members a great number of different things, in such wise that the dividend on purchases received by a member, who buys, say, tea only, is not simply a return on the excess of what he paid for his tea above the cost of the tea, but is dependent on the aggregate excess of what all the members have paid for all the things bought by them above the cost of all these things. But this fact is not really relevant. The aggregate sum distributed to members is still a refund and not a profit. The basis on which they choose to divide it is a matter for them to determine. It has no bearing on the nature of the thing to be divided. It would seem to follow that the income tax law cannot properly treat the surplus that results from transactions with their own members, even to the most highly elaborated forms of co-operative societies, as a taxable profit.

The majority of the Royal Commission on the Income Tax, while agreeing that the part of the proceeds of mutual trading which is distributed in "divis." is not profit, claim that the (much smaller) part which is retained by the societies and placed to reserve is profit. They base their view upon a distinction between co-operative societies, as separate legal entities, and their members as individuals. The societies, they say, after payment of their dividends on purchases, which are in the nature of discounts, make out of the balance of their net receipts an ordinary money profit, which, just like the money profit made by joint-stock companies, is properly taxable. To this contention, however, it may be answered that, for the purpose of income tax, joint-stock

companies are not, *as* companies, liable to tax; they are merely channels through which, with as much accuracy as practical conditions allow, the taxation due from their members is collected. Hence, on this analogy, if the money put to reserve by co-operative societies is taxable profit at all, it must be taxable profit *of the members.* But to decide that the proceeds of mutual trade are not profits from the income tax point of view when they are distributed in dividends on purchases, and are profits when they are not so distributed, is to make the nature of these proceeds depend, not on their origin—which is clearly the proper test—but on their destination, which is no test at all. The mediating view of the majority of the Royal Commissioners seems to me untenable in the face of this objection.

With the main issue thus cleared out of the way, subsidiary matters readily fall into place. There is no dispute that the net proceeds of a co-operative society's trade with non-members is a money profit and properly taxable. The income they receive from securities held by them is no less clearly a money profit. These two items, in short, stand on exactly the same footing as the virtual income from their Schedule A property, which (alone) is at present taxed under the English law. It is proper that all these items alike should be brought under assessment. If this is done, however, it is plainly not proper that share interest in the hands of the co-operative societies' members should also be taxed without any set-off for the prior taxation of the sources out of which this share-interest is, at least in part, paid. If income tax were an ungraduated tax, a simple solution of the difficulty could be found in assessing the three items which have been enumerated in the hands of the societies and exempting share-interest altogether. But under the actual income tax, since taxation at source is levied at the standard rate and the great bulk of co-operators are either exempt from income tax altogether or liable at a low effective rate, this plan would mean taxing them more heavily than is right. To tax share-interest alone, at the rates appropriate to the several members, and to exempt the above three items in the hands of the societies might, on the other hand, involve taxing co-operators less than is right; because a portion of the items of profit which I have distinguished may find its way, not into share-interest, but into the "divis." The only completely fair solution

would be to tax these items in the hands of the societies at the standard rate and to allow to the shareholders—who are, of course, the same people as the members—a full set-off on the taxation of their shares. Since, however, as has been pointed out above, a great many shareholders in co-operative societies are below the exemption limit, and so owe no taxation on their share interest from which a set-off can be allowed, to carry out this arrangement in practice would be extremely difficult. Moreover, the accounts of the retail societies which, of course, constitute far and away the most important part of British co-operation, show that in 1918 the aggregate value of investments, whether in the form of house-property or of securities, amounted to some £27,000,000, while the interest on the share-capital of members was £2,200,000. The interest paid to members may, therefore, reasonably be held to cover the actual and virtual income from the societies' investments. As the profit from non-members' trade is known to be very small, it follows that there can in fact be scarcely any properly taxable income left over when share-interest paid to members has been brought under assessment. There is a theoretical possibility of unduly favourable treatment under the present law. But in fact it is probable that, when account is taken both of the Schedule A assessment and of the assessment of share-interest, co-operators are taxed too much. If the Schedule A assessment were withdrawn, there would probably be a slightly closer approximation to ideal justice; but this assessment does not amount to much, and it would seem that substantial justice is already attained under the present law.

Up to this point, proceeding on the assumption that the proper object on which to assess an income tax is money income or money profit, we have found the co-operators' claim that no part of the proceeds of their mutual trading should be subjected to income tax to be justified. Let us now turn to the second division of our inquiry, and ask whether that basis itself is sound. For purposes of taxation it is obvious that we can have nothing to do with "subjective" incomes of satisfaction. Objective income alone concerns us. But the term objective income is itself capable of sub-division. On the one side, there is a man's *real* income of goods and services; on the other side, his nominal income of money. In large part these two things correspond, money income

being the representative of, and the payment for, real income. But this correspondence is not complete. Thus, one man devotes his capital and labour to making cotton yarn; he sells the yarn for £1,000, and buys with this food and clothing for his family; another man devotes an equivalent amount of capital and labour to making food and clothing directly. The real income of these two men may be exactly the same; but the first of them has a money income of £1,000, and the second has no money income at all. As a matter of principle, there can be no question that, if income is to be taken as the basis of any form of taxation, real and not nominal, or money, income is the proper thing to take. Whether this real income is obtained directly or through the mediation of money is an irrelevant accident. In a perfect world income tax would be assessed impartially upon all parts of real income, whether or not there were any money income corresponding to them.

In the actual world this arrangement is unfortunately not practicable. The services, for example, that the different members of a family render to one another without payment cannot be brought into any income tax return; nor—without far more trouble than it is worth—can the services that a man gets from his furniture or his clothes. Under the English income tax, therefore, for reasons of administrative practicability, those portions of real income which are not represented in money are, in the main, left outside the scope of the tax. An exception to this general rule is made in respect of houses and lands occupied by their owners. Though no actual money rent is received, owners are assessed under Schedule A on the rent which it is assumed they would have received if their property had been let to somebody else.

It is possible to imagine a type of co-operative society in which all the members should club together in a self-sufficing community, growing corn, making bread, making clothes, digging out coal and building houses, and sharing the proceeds of their joint work among themselves without any money payment whatever being made. Conceivably, the whole nation might organize itself into an immense mutual association on this pattern, with the result that, though its real income remained as large as it is now, there would be no money income at all. If this happened, it is evident

that an income tax of the British type would no longer be an effective instrument for raising revenue. Its efficacy and its (relative) fairness depend upon the condition that those parts of real income, which are omitted from its scope because they are not represented by, or easily convertible into, money income, constitute only a small part of the whole. If this condition ceases to be satisfied, the whole form and machinery of the tax may need to be modified.

The great development of the co-operative movement in this country is thought by some to involve a withdrawal from the pressure of the income tax of a large amount of real income in the way that has just been indicated. Impressed by the great annual turnover shown by co-operative societies, they insist that all this trade *must* yield a substantial real profit of the same sort as that obtained by private trading, and that this profit ought somehow to be brought under assessment. They recognize, of course, that, in so far as the societies are composed of small men, some of the profit belongs to persons who are exempt from income tax. But, they argue, this is no sufficient reason for allowing the other part of it, which belongs to persons who are not exempt, to escape its fair share of taxation. In short, the contention is, the co-operative form of business organization is responsible for creating so large a slice of real income not represented in money income that fairness requires a special rule to be made for rendering it taxable, just as a special rule has been made for rendering taxable the real income that owners receive from the ownership of lands and houses occupied by themselves.

I have already conceded that co-operative societies *might* be so organized as to make this argument a valid one. We have now to consider in what way they are organized in fact. On the side of labour, in the widest sense, there are paid managers, a paid staff and paid workpeople. There is also an unpaid committee, corresponding to the paid directorate of a joint-stock company. The work of this committee is the only item on the side of labour in which an income of real service is embodied without a money counterpart. Plainly it can only amount to a very trifling proportion of the whole. On the side of capital the contention that the co-operative form of business organization enables a considerable amount of real income to be created which is not represented

in money is more plausible. The services rendered by the share-capital of members already has a money representative—though possibly since the rise in general interest-rates not an entirely adequate one—in the interest that is paid on it. But, so far as capital is obtained by contributions to reserve funds and by the retention on the part of the societies of moneys which are to become "divis." during the interval between the purchases by members of goods for cash and the distribution of the "divis.," and so far as this capital is employed in the societies' own business, with the result of lowering prices or increasing the rate of "divi.," there is no taxable money representative of the real services that it renders. Thus, we may imagine a society buying up a mill out of its accumulated reserves. If this mill had previously been earning £10,000 and were run now with exactly equal efficiency, no earnings of capital would appear as money profit, but the whole £10,000's worth of real income would remain, and would take the form either of lower prices or of larger dividends on purchases. The reserve fund of the whole body of British Retail Co-operative Societies amounted in 1918 to a little over £4,000,000. If we take the distribution of "divis." to come to 16 millions a year, distributed quarterly, the average amount of capital held by the societies in respect of "divis." will be 2 millions. If we reckon the real rate of return on the 6 millions capital composed of these two sums to be 10 per cent., we have some £600,000 a year of real income not represented in money income. This, belonging as it does to a body of nearly 4,000,000 persons, amounts to about 3*s.* per head per annum. On the (optimistic) assumption that co-operators on the average are liable to income tax at one-half the standard rate, the aggregate revenue due on this £600,000 would be £90,000. In fact, it is probably a much smaller sum.

If it were thought that the sum involved were important enough to warrant a departure from the general income tax rule of confining taxation to money income, only one method of striking the items of real income which we have found to exist among co-operators seems to be practicable. They cannot be got at directly. But a part of them might be got at indirectly by the device of subjecting to income tax all moneys placed to reserve by co-operative societies. Being unable to strike effectively the income which these resources yield, we might strike instead

the contributions out of which the assets destined to yield that income are created. Of course, this would imply the exemption from Schedule A taxation of all property purchased out of reserves accumulated after the new arrangement came into force; and also the adoption of some device—presumably by way of a set-off to members in their capacity of shareholders—to provide against a charge at the full standard rate being levied on persons most of whom are not liable to that rate.

It must be clearly understood that this arrangement would not put co-operative societies in the same position as other people as regards income tax, but, on the contrary, would involve the introduction of a new discriminating method of assessment specially directed against them. This could only be justified if it were shown that the loss of revenue which results from treating them in the same way as all other taxpayers is large relatively to the loss that results from assessing these others on their money income instead of on their real income. From what has been said it is apparent that, in fact, the loss is not only relatively, but absolutely, of quite trifling amount. In these circumstances there is, in my judgment, no sufficient warrant for subjecting co-operative societies to a rule of assessment different from that applied to the general body of the community.

XIV

THE REAL RATIO OF INTERNATIONAL INTERCHANGE[1]

IN current discussions of the economic fortunes of various countries great attention has been paid to the money rate of exchange. There is, however, something more fundamental than this. Behind the veil of money every country is engaged in sending exports abroad and exchanging them against imports. Plainly, the rate at which this ultimate exchange is effected—the real ratio of international interchange, as I shall call it—is very important to a country's well-being. Since, however, it is not, like the money rate of exchange, a matter of continuous and public record, very much less consideration has been given to it. The purpose of the following paragraphs is to discuss this conception and to exhibit the relation in which it stands to certain of the great current problems.

At the outset it is necessary to make clear what precisely the real ratio of international interchange is here taken to mean. The matter is somewhat complicated by the fact that in actual practice exports are often sold immediately against money or bank balances, and that this money is held for a time before being used to buy imports. When this happens, the real ratio of interchange between the exports and the imports is liable to be modified by changes in the internal purchasing power of the foreign currency that take place during the interval while it is being held. This kind of disturbance has, of course, been exceedingly important in connection with the fall of the mark. But in this discussion I am not concerned with it. By the real ratio of international interchange I mean the amount of foreign goods that a country

[1] From the *Manchester Guardian Reconstruction Supplement*, December, 1922.

can get here and now in exchange for a given quantity of its exports, when the sale of the exports and the purchase of the imports take place simultaneously.

If a country only had one sort of import and one sort of export, neither the conception of the real ratio of international interchange nor the technique of measuring it would present any difficulties. A unit of the export good would interchange against so many units of the import good. The number of these units would measure the real ratio, and changes in the number would measure changes in the real ratio. When, however, account is taken of the fact that countries, as a rule, have a great many different sorts both of import goods and of export goods, the task of making our conception precise is very much more difficult ; because, of course, the ratio between export A and import B may vary in one way, and that between export C and import D in another. We are faced, in short, with a more complicated form of the problem that confronts the makers of index-numbers. The value of imports in general in terms of exports in general is a notion of exactly the same sort as the value of things in general in terms of money. No precise significance can be given to this notion, and no completely satisfactory measure of changes in it can be devised. Nevertheless, just as, on the basis of some system of weighted averages, we can reasonably speak of a rise or fall in the value, say, of foodstuffs in general in terms of raw materials in general, so also we can reasonably speak of a rise or fall in the value of imports in general in terms of exports in general. The notion is very rough and imperfect, but it is one which, for all its imperfections, we cannot afford to discard.

There is a further point which it is desirable to elucidate before broader issues are considered. In what way are changes in the real ratio of international interchange related to changes in the money rate of exchange? If we are concerned to compare two periods in both of which conditions are fairly stable, the answer to this question is easy. Alterations in the real ratio of interchange and alterations in the money rate of exchange are not connected with one another at all. For consider trade between the United Kingdom and the United States. In stable conditions the rate of exchange and the sterling and dollar prices of all the things that enter into trade must be adjusted to one another in such

a way that no abnormal profit on the exchange can be made by a person buying something in England and selling it in America, or *vice versa*. For, the moment that any opening for such abnormal profit is made, strong forces come at once into play to close it. Thus, suppose the rate of exchange between marks and dollars alters in such wise that it requires 200 marks to buy the number of dollars that 100 marks used (in conditions of equilibrium) to buy, but that the price of a unit of wheat and a unit of iron are both still 100 marks in Germany, and both still one dollar in the United States. Then an American owner of iron can sell a unit of it in America for a dollar, buy with this dollar a unit of wheat, sell the wheat in Germany for 200 marks, and with the proceeds buy in Germany two units of iron, in this way turning his original unit of American iron into two units of nearly similar German iron. Obviously this state of things cannot last. Hence, as between two periods in both of which conditions are stable, a change in the real ratio of interchange between English import goods and English export goods can only realize itself through a change in their relative sterling prices. Changes in the real ratio and changes in these relative prices will exactly correspond to one another. If the sterling prices of English exports double while the sterling prices of English imports remain unchanged, the real ratio becomes exactly twice as favourable to England as it was before. This is the whole thing. No further element of change has to be reckoned with, however much the *money rate of exchange* may have altered; for, *ex hypothesi*, the sterling and dollar prices of everything that can enter into trade are adjusted to the money rate of exchange. In a paper in the *Economic Journal* twenty years ago Dr. Bowley made some interesting calculations along these lines.[1]

In a period, however, when the conditions of international trade are being subjected to strong continuing pressure in one direction, adjustment between the prices of traded goods in different currencies and the rate of exchange between these currencies may fail to come about. The position of equilibrium becomes a flying goal, and the forces that pursue it may lag behind. In these circumstances the real ratio of international interchange may alter independently of changes in the relative sterling prices of English import goods

[1] *Economic Journal*, 1903, pp. 628–33.

and English export goods. For English traders may find themselves in a position, by buying foreign goods in foreign currency and selling them at sterling prices in England, to make an abnormal exchange profit. This profit, being the profit of Englishmen, is clearly relevant to the real ratio of international interchange between English exports and English imports. Thus, suppose an Englishman to sell English exports in Germany for marks and to buy German goods with these marks at German home prices. When he returns to England he sells them here at sterling prices, which, it is quite possible, are substantially the same as before. In making our estimate of what has happened to the real ratio of international interchange we must then mentally substitute for the sterling prices at which those imports are actually sold the sterling prices at which they would have been sold if the English dealer had received a normal profit only, and not also a special extra profit on the exchange. In other words, before a true picture of movements in the real ratio of international interchange can be obtained, the relative movements of sterling export prices and sterling import prices must be supplemented by something else. It is natural to suggest that a measure of this something else may be found in the deviation that has taken place between the actual rate of exchange and what Professor Cassel has called purchasing power parity. Since, however, in periods of falling exchange import and export prices adapt themselves much more nearly to the rate of exchange than prices in general (on which calculations of purchasing power parities are based) do,[1] the use of this measure would make the real ratio of international interchange appear to have altered more than it has in fact done. Still, though the something else that has to be reckoned with cannot be measured in this simple mechanical way, it is essential, in times of violent change, somehow to bring it into account.

Let us now pass from matters of definition, technique and measurement to deeper issues. There are a great number of ways in which the real ratio of international interchange can be turned against a country. Not all adverse movements are associated with economic loss. A country, for example, may find means of

[1] Thus, as between the average of July, 1922, and August 25 of the same year, while the mark value of dollars increased about three times, the mark value of German-made goods a little more than doubled, but goods imported into Germany trebled in mark price.—*Board of Trade Journal*, September 21, 1922, p. 315.

making its export goods with less real expenditure of labour and use of equipment. It will then send more exports abroad, and sell them against imports at a smaller real price. This sort of worsening in the real ratio is not, of course, an injury to a country, because, though it gets less imports than before for a given quantity of exports, it gets more than before for what underlies its exports, namely a given quantity of labour and service of capital. There are, however, other sorts of adverse movements of the real ratio that *are* associated with economic loss; and, as it so happens, it is these that have especial prominence at the present time.

When a country finds itself compelled, as Germany is compelled under the Peace Treaty, to provide abroad a large mass of foreign values by way of indemnity, it can only do this by selling its goods, its promises, or its money to foreigners. The more foreign values it has to provide, the greater the quantity of these things it has to sell abroad, and, therefore, the worse terms it has to accept, not only in respect of those exports that go to provide the indemnity, but also in respect of those that go to buy such imports as it still requires. The character of the debtor country's demand for imports being given, the extent to which the real ratio is affected by a given scale of indemnity payment depends on how urgent—in technical terms how inelastic—the demand of foreigners is for the exports of the debtor country. If these exports are of such a sort that it will take a large reduction of real price to induce foreigners to buy a little more of them, the ratio may be depressed very greatly. Conditions are even conceivable in which it would be impossible for a debtor country to make a given sum of indemnity payments, as fixed in foreign values, however great a volume of goods she exported; for the foreign demand for her goods might be so little urgent that even an infinitely large volume of them sold abroad would not yield the stipulated sum of foreign values.

This consideration has relevance to the issue between reparations in cash and reparations in kind. If the total of reparation payments is fixed in gold values, and reparations in kind are counted towards these payments at the values they would have had if sold freely in foreign markets, reparations in kind and reparations in cash come to very much the same thing. But if, at the outset, instead of saying, "Germany must deliver annually an aggregate of reparations equivalent to *x* million gold dollars," the Allies had

said, "She must deliver annually so much coal, and so much of various sorts of manufactures and other specified goods," the quantities being calculated in such a way that, at the then prices *before delivery was made*, they represented *x* million gold dollars, there would have been a substantial difference. Germany's burden would have been lightened, because she would not have had to increase her delivery of things to make up for the depreciation in the gold value of those things which the fact of their delivery must, in some measure, bring about.

There is another way in which the real ratio of international interchange can be turned against a country. This happens if foreign countries impose import taxes upon its goods. When they do this, a part of the proceeds of these goods is absorbed in paying the taxes, and so is not available to buy foreign goods. Unless, then, the foreign sellers of goods are willing to accept a real price reduced to correspond with the taxes that have been put on imports, which is very unlikely, a country will get less foreign goods than before against a unit of its own goods sent abroad to the tax barrier. In this sense it will find itself forced to pay a part of the foreign country's taxes. In ordinary circumstances the contribution which one country can be compelled to make to another in this way is not likely to amount to much. She need not buy this other country's goods, and, by reducing her demand for them, is able to throw the burden of the import duties in the main on the inhabitants of the countries that impose them. In the case of Germany at the present time, however, circumstances are not ordinary. Being under obligation to make large reparation payments abroad, and at the same time being in urgent need of raw materials, which constitute the bulk of her imports, that country has an abnormally rigid demand for foreign values—a demand that is not dependent, so far as reparation payments are concerned, on the price at which these values can be bought. At the same time, many foreign countries, and not one only, are imposing high duties on goods from Germany. In the conditions that now rule this policy can hardly fail to turn the real ratio of interchange strongly against her, and so to throw upon her, in addition to reparation payments proper, the further burden of paying in goods a substantial part of the foreign import duties. In the extreme case, if Germany had no foreign dealings except in

reparation payments, and if the amount of these was rigidly fixed, the rest of the world, by putting a 100 per cent. tariff on everything coming from Germany, could, in effect, double the amount of her reparation debt. This class of consideration is highly relevant to the question what amount of reparations proper Germany has the capacity to pay.

The same consideration has an important bearing on the high tariff policy recently adopted by the United States. It is sometimes suggested that for that country at once to claim payment of the debts due to her from Europe and to erect a high tariff wall is, from her point of view, a futile proceeding ; it is to ask for payment in one breath and to decline to receive it in the next. But this does not give a true picture of the situation. The fact that the United States has become a creditor for large debt payments, coupled with the fact that her exports are largely made up of things with which other countries cannot easily dispense, puts her in a position of great strategical strength. She has the power, by taxing imports, to turn the real ratio of international interchange so far in her favour that the foreigner, besides paying his debts to her, is also forced to contribute substantially towards her tax revenue. It is not to be supposed that this is what the people of the United States have intended to do, for it is not a generous proceeding ; but there can be little doubt that it is what, with their high tariff policy, they are in fact doing.

XV

THE FOREIGN EXCHANGES[1]

THE rate of exchange between two moneys, e.g. dollars and sterling, is measured by the amount of sterling in England that will exchange against a claim for the immediate payment of a dollar in America. It is thus a particular example of something much more general. Just as there is a rate of exchange between dollars and sterling, so there is also a rate of exchange between lead in England and iron in America, though it does not happen that documents embodying this rate of exchange are drawn up and quoted on the market. Exchanges between the moneys of different countries are in practice effected by bills at six months, bills at three months, bills payable on demand and telegraphic transfers. When one buys with sterling a bill for dollars that will only yield dollars after an interval, the price paid must obviously allow an item for discount, and does not, therefore, exactly represent the pure sterling price of dollars. Even when a bill is payable at sight, a person who buys it for sterling in London cannot obtain dollars from the person on whom it is drawn until it has been sent to New York. Thus, the sterling price of a sight bill for dollars in London is made up of the pure price of the bill *minus* about a week's interest. It follows that sales of sight bills for dollars against sterling in London and sales of sight bills for sterling against dollars in New York will not indicate exactly equal rates of exchange between sterling and dollars. With telegraphic transfers, however, the element of interest is eliminated. Contemporaneous interchanges between sterling and dollars effected by these means are bound, except for momentary deviations, to take place at the same rate in whichever country they are made: for, if in New York the rate were \$4.80 to the pound and in London

[1] From the *Quarterly Journal of Economics*, November, 1922.

$4.70, operators in arbitrage would immediately sell sterling for dollars in New York and buy sterling with dollars in London, and would continue to find profit in doing this until the rates were adjusted. Hence, the pure rate of exchange between sterling and dollars prevailing at any moment can be properly spoken of as a single thing, without reference to the place at which the exchange is made: and the same thing, of course, is true of the pure rate of exchange between *any* two moneys. It is with this single rate of exchange that the following pages are concerned. It is proposed to investigate (1) the conditions of exchange equilibrium; (2) the influences under which the equilibrium position, or, more briefly, the norm of exchange, may be altered; (3) the causes and consequences of different sorts of lapses from alignment between actual exchange rates and the current norm of exchange; and (4) government interference with the exchanges.

The conditions requisite to the existence of exchange equilibrium are easily generalized as follows. Consider any commodity whatever that is in use in both of two countries. The commodity may (1) flow from country A to country B, or (2) flow from country B to country A, or (3) not flow in either direction. For any commodity that does flow, exchange equilibrium requires, in general and subject to two exceptions which will be considered immediately, that a unit in the country of export shall buy a claim in the country of import to a unit *minus* the cost in transport, taxes, loss of interest and so forth involved in sending a unit there. For the present purpose the interest element, which obviously varies with the time required for effecting transportation, is unimportant and may be neglected. For any commodity that does not flow between the two countries exchange equilibrium requires that a unit in one country shall exchange for a claim on a number of units in the other, not less than one unit *minus* the cost of transportation (including taxes) outwards, and not more than one unit *plus* the cost of transportation inwards. These two costs of transportation may, of course, be different. So far as they are due to import or export duties, they are pretty certain to be different, and, even apart from taxation, they will very likely be different, since there is no necessity for out and home freight rates to be equal.

It was said above that this analysis is subject to two exceptions.

The reason is that it depends on two assumptions. These are that, if some stuff is being sold in one market at a better profit than in another market, people (1) *will be able to* and (2) *will desire to* divert units of the stuff from the less to the more profitable market, until the discrepancy between them is destroyed. These assumptions are not always justified.

First, it sometimes happens that a government permits the import or the export of a commodity up to a certain amount under a system of licences, but forbids import or export in excess of a defined maximum. That is to say, would-be sellers are *not able* to divert their stuff, after a point, from the less to the more profitable market. In these circumstances, if the commodity is flowing in quantities less than the permitted maximum, that maximum has no effect. But, if it is flowing up to the maximum, it is no longer true that exchange equilibrium requires a unit in the exporting country to be capable of buying a claim to a unit *minus* the cost of transportation in the importing country. Further units could only be sent at an infinite cost. Hence, all that exchange equilibrium requires is that a unit in the exporting country shall buy a claim in the importing country to *not more than* a unit *minus* the cost of transporting one of such units as are in fact transported. Since the cost of transporting further units is made infinite by the government prohibition, a unit in the exporting country can buy a claim in the importing country to any quantity less than this, without violating the conditions of exchange equilibrium. Thus, when a definite limit was fixed to the amount of coal that might be exported from England, a ton of coal in England might have exchanged against a claim for as little as, say, a hundredweight or even an ounce of coal in Sweden.

Secondly, when the production of a commodity in one of two trading countries is in the hands of a monopolist, this monopolist, though *able* to divert his stuff from a market yielding less to one yielding more profit, may not *desire* to do so. For the transference of a unit from the foreign market, where, we may suppose, a lower profit is being made, would not only lead to that unit being sold on better terms than before, but would also lead to the other units proffered in the home market having to be sold on worse terms, and, under certain conditions, the loss would exceed the gain. This is merely another way of stating the familiar proposition

that a monopolist can sometimes make his largest aggregate profit by discriminating in price between two markets. In these conditions a unit in the exporting country may exchange against a claim to more than a unit in the importing country in spite of the fact that the process of import involves costs.

Up to this point we have considered conditions of equilibrium as regards single commodities separately. We have now to take account of the links between them. Houses in England and theatres in America, being both non-transportable, may, so far as they alone are concerned, exchange against one another at practically any rate without violating the conditions of exchange equilibrium. Moreover, if *everything* in England is non-transportable to America and vicè versa, *any* rate of exchange between English houses and American theatres will be an equilibrium rate, not merely so far as these things are concerned, but absolutely. As between the Earth and Mars, for example, there cannot be any lapse from equilibrium, whatever the rate of interchange between *anything* on the Earth and claims to *anything* on Mars. Equilibrium, in short, is represented, not by a single point, but by a range of (in this case) unlimited length. If, however, any one thing flows in the course of trade between two places, equilibrium requires that a unit of that thing in the exporting country shall exchange against a claim to a single definite quantity of that thing in the other country; and, since the transportable thing must exchange at a definite rate against any other thing in each country, there must also be a single definite rate of exchange between any given thing in one of the two countries and claims to any given thing in the other. Thus, if lead is traded between England and America, so that an ounce of lead in England buys a claim to a definite quantity of lead in America, then, since houses in England exchange against a definite quantity of lead in England, and theatres in America exchange against a definite quantity of lead in America, the rate at which, in equilibrium, houses in England must exchange against a claim to theatres in America is definite and determined. Thus, let D, S, and W be three commodities, of which W is, but D and S are not, capable of being transported. In America one unit of W exchanges for p_d unit of D. In England one unit of W exchanges for p_s unit of S. If no cost is involved in transporting W between England and

America, then, apart from discriminating monopoly, it is necessary for equilibrium that one unit of W in America shall exchange for a claim to one unit of W in England. Hence, we have the equations:

$$\begin{aligned}
&1 \text{ unit of } W \text{ in America} &&= p_d \text{ units of } D\\
&1 \text{ unit of } W \text{ in England} &&= p_s \text{ units of } S\\
&1 \text{ unit of } W \text{ in America} &&= 1 \text{ unit of } W \text{ in England}\\
&\therefore p_d \text{ units of } D &&= p_s \text{ units of } S
\end{aligned}$$

If one unit of W in America is worth a claim, not to one unit, but to $(1 + m)$ units of W in England, it is easily seen, by an extension of the above reasoning, that p_d units of D must exchange against $(1 + m)p_s$ units of S. It follows that, since in ordinary times *something* is practically certain to be flowing, either directly or indirectly, between England and America, equilibrium in respect of each several item, whether or not it itself is flowing, will be satisfied by one rate only.

This result is perfectly general, whatever the commodities involved are. Given the relative values of any W and any D in America, the relative values of this W and any S in England, and the value of this W in America in terms of itself in England, it is always possible to deduce the equilibrium rate of exchange between D in America and S in England. When, therefore, we make D and S represent dollars and sterling, we have not to do with something special and peculiar, but merely with one example of a large class of kindred phenomena. The result can be set out formally as follows. Adjustment being made for cases of discriminating monopoly, equilibrium requires that, if there is a commodity flowing freely without cost from England to America with sterling price p_s' and dollar price p_d', the number of pounds (R) that exchange for one dollar shall be $\frac{p_s'}{p_d'}$. If there is a commodity flowing from England to America at such cost that m units of it are absorbed in the process of movement, and its dollar and sterling prices are p_d'' and p_s'',

$$R = (1 + m)\frac{p_s''}{p_d''}$$

If there is a commodity that is flowing in the opposite direction

at a cost of movement represented by n units, and its dollar and sterling prices are p_d''' and p_s''',

$$R = (1 - n)\frac{p_s'''}{p_d'''}$$

If there is a commodity that is not flowing in either direction but the costs of movement are as above, R may, so far as the direct relations between money and that commodity are concerned, lie anywhere between

$$(1 + m)\frac{p_s''''}{p_d''''} \text{ and } (1 - n)\frac{p_s''''}{p_d''''}$$

But this does not mean that R is indeterminate; it is already determined, as p_s'''' and p_d'''' themselves are determined, by its relation with the prices of the things that do flow.

Before we proceed further it is important to make clear what precisely this exchange equilibrium, whose conditions we have been investigating, is. There is no equilibrium if (apart from discriminating monopoly) it is possible, by buying dollars with sterling and then buying American goods with dollars, to obtain and to bring to England for sale there any single American good at a less sterling cost than that good could be bought for in England: and there is no equilibrium if, apart from discriminating monopoly, it is possible to send any single English good to America and make, by selling it there, a larger sterling profit than is obtainable by selling it in England. When either of these things is possible, there is a discord between exchange rates and relative price levels, which nature abhors and will endeavour strenuously to correct. When, however, neither of these things is possible, there is a sort of equilibrium—an equilibrium on the surface—which, for the purpose of this discussion, I call exchange equilibrium. But note precisely what this means. It means only that nobody can gain by diverting a unit of any kind of product, that might have been sold in the English market, to the American market, or vice versa. Suppose that by some "accident" a dollar comes to exchange for 20 per cent. more sterling than it used normally to do. The immediate effect is that an English seller of, say, woollen cloth gets 20 per cent. more sterling for sales in America than for sales in England. So long as this state

of things goes on, there is no equilibrium of any sort. Exchange equilibrium will, however, be restored as soon as the extra export stimulated by better profit has raised sterling prices in England sufficiently to destroy the difference between the profit on foreign and that on home sales. This adjustment would in all ordinary circumstances take place fairly quickly. But the fact of its taking place gives no guarantee that *industrial equilibrium* has been restored. The woollen industry and other export industries in England may be left, as a result of the new conditions, in the enjoyment of abnormal profits on *both* their foreign *and* their home sales, relatively to the main body of English industry. Industrial equilibrium is wanting until this form of inequality also has been corrected. Moreover, even when industrial equilibrium, in the sense of a balance between export industries and other industries, has been restored, there may still be wanting that yet more fundamental equilibrium, under which the return to capital invested in industries in general does not differ very widely between different countries. This distinction between exchange equilibrium and other deeper forms of equilibrium has been somewhat obscured in recent discussions of "purchasing power parities." It should be clearly understood that exchange equilibrium does not imply (though, of course, it is not incompatible with) any further equilibrium.

Let us now suppose that conditions are established under which exchange equilibrium between dollars and sterling is represented by a rate of $4.86 to the pound; and let us consider in what way it may be possible for the position of equilibrium—or the norm of exchange—to be shifted to a different rate. It is important to notice that no such shifting is made necessary by a change in the relative values of the goods we import and the goods we export. It may happen for a variety of reasons that British stuff comes to be exchanged on better or on worse terms against American stuff. This implies a rise both in the sterling and in the dollar price of British stuff as compared with American stuff. But exchange equilibrium is only disturbed if the dollar price of something (that enters into trade) is altered as compared with the sterling price: and a relative movement in both the dollar and the sterling prices of different things does not involve that. Nor is exchange equilibrium directly affected, even though the sterling prices of things

that enter into international trade are shifted relatively to the dollar prices, provided that the shifting is only such as to correspond with alterations in transport or customs charges. In order that the norm of exchange may be moved it is necessary that the sterling and dollar prices of traded goods should alter relatively to one another, in such a way that, if the rate of exchange remained unaltered, there would be an opportunity for profit by diverting goods from the foreign market to the home market, or vice versa. This can only come about on any large scale through an alteration, in one of the two trading countries, in the *general* relation between money and things. Thus, all sterling prices would tend to be pushed up either by a diminution in the volume of things dealt in during the year, or by an increase in the volume of the currency, or by an increase, through improved banking methods and so on, in the efficiency of the currency. Such movements would call for a lower rate of exchange between sterling and dollars as a condition of exchange equilibrium.

As between two countries, in both of which there is an effective gold standard, it is not possible for the general relation between money and things to be altered in one of them to any large extent without a more or less corresponding alteration being induced in the other. The reason, of course, is that, if the value of gold falls in one of them in terms of things that enter into trade and does not fall in the other, it becomes profitable to export gold from the country of raised prices. As a result of the gold movements prices in that country are lowered again, and prices in the other country raised. This adjusting process renders it impossible for the new norm of exchange to diverge from the old one beyond the limits set by the export and import specie points.[1] If, however, one of the two countries has an inconvertible paper currency, the

[1] Before the war it was sometimes believed that equilibrium, as between two countries with effective gold standards, required, not merely a rate of exchange somewhere within the specie points, but a rate definitely corresponding to Mint par, that is to say, a rate such that an ounce of gold in one currency exchanged against a claim on an ounce of gold in the other. That is easily shown to be a delusion. For suppose that neither gold nor silver flow between A and B. Then, if an ounce of gold in A will exchange against an ounce of gold in B, it is impossible that an ounce of silver in A should exchange against an ounce of silver in B, unless the value of gold in terms of silver in A is exactly the same as the value of gold in terms of silver in B, and it is obviously not necessary, or even likely, that this condition will be satisfied. Hence, if Mint par for gold gives exchange equilibrium, Mint par for silver will not; and money may be made equally well of the one as of the other of these metals.

range of possible divergence is not limited in that way. The price level in one of the two countries is free to move relatively to that of the other to almost any extent, and the norm of exchange has a correspondingly wide range. Theoretical limits are fixed by the value which a country's (say England's) money substance, when demonetized, would have in American money and the value which America's money substance, when demonetized, would have in English money. Thus, Bradburys could not fall in terms of dollars to a value below that of the paper content of Bradburys *minus* the cost of carrying the paper to America. A limit of this character is, for practical purposes, equivalent to no limit at all.[1]

Our analysis must now be brought into relation with the doctrine of "purchasing power parities," which Professor Cassel's publications have made prominent. This doctrine, as enunciated by its author, contains two parts: one, as it were, positive and the other comparative.

The positive part of the doctrine may be set out in its author's words thus:

> "Our willingness to pay a certain price for foreign money must ultimately and essentially depend on the fact that this money has a purchasing power as against commodities and services in the foreign country. On the other hand, when we offer so and so much of our own money we offer in fact a purchasing power against commodities and services in our own country. Our valuation of a foreign money will, therefore, essentially depend on the relative purchasing power of the currencies of both countries."[2]

If a pound will buy four times as much in England as a dollar will buy in America, purchasing power parity is attained when the rate of exchange between dollars and pounds is as four to one. This purchasing power parity

> "represents the true equilibrium of the exchanges. It is to this we have to refer when we wish to get an idea of the real value of the currencies,

[1] For practical purposes, so far as *falls* in exchange are concerned, Bradburys may be regarded as inconvertible paper money. For, though they are technically convertible into sovereigns, sovereigns may not be either melted or exported, with the result that the *nexus* between them and uncoined bullion, and, therefore, that between Bradburys and uncoined bullion, is destroyed. A Bradbury could not, however, rise in value above the gold content of the sovereign, because gold may still be freely imported, and the Bank, or, more strictly, the Mint must buy all gold offered to it at £3 17*s*. 9*d*. per ounce.

[2] *The World's Monetary Problems*, p. 36.

whose exchanges are subject to arbitrary and sometimes wild fluctuations."[1]

In short, subject to the reservation that there are no "one-sided" obstacles to trade, that rate of exchange which makes the internal and external purchasing powers of sterling, as calculated by Professor Cassel, equal, *is* the equilibrium rate, or norm, of exchange.

The comparative part of the doctrine takes as a starting-point some period in which exchange equilibrium is assumed to prevail. For this period we put the index number of American dollar prices and of English sterling prices both at 100. In both countries prices in any future year are expressed in numbers that bear to 100 the ratio that prices then bear to prices in the base period. The figure representing dollar prices is divided into the figure representing sterling prices. The quotient, multiplied by the rate of exchange that ruled in the base period, gives, according to Professor Cassel's comparative doctrine, the norm of exchange proper to the new year. In short, whereas the positive doctrine asserts that exchange will be in equilibrium at any time if the rate then ruling makes the external and internal purchasing powers of sterling equal, the comparative doctrine asserts that, if we start from a position of equilibrium and conditions alter, the consequent *change* in the norm of exchange will be proportionate to the *change* in the ratio between sterling and dollar prices. It is obvious that, if the positive doctrine is true, the comparative doctrine must be true also; but, if the positive doctrine is false, the comparative doctrine may, nevertheless, be true.

If it were the fact that all commodities produced in either of two countries flowed without cost between them, Professor Cassel's positive doctrine would follow immediately. But a large number of commodities not only fail to flow without cost but do not flow at all. There is no necessity, in order that exchange equilibrium may be established, for the internal purchasing power of sterling in respect of these commodities to be the same as its external purchasing power. A recent report of the United States Tariff Commission finds:

"Such products as wheat, copper, and cotton have about the same gold price the world over, after due allowance is made for the cost of trans-

[1] *Ibid.*, p. 38.

portation and artificial restraints of trade. On the other hand, there are many commodities, such as articles of fashion or peculiar foodstuffs which rarely enter into international trade, whose prices are adjusted locally with little reference to the price of similar commodities in foreign countries. A third class of products occupies an intermediate stage with respect to international price adjustments. Examples of these are specialized textile fabrics, aluminium ware, and highly wrought manufactured goods of various sorts." [1]

There is no reason to expect that the prices of the various sorts of non-traded and partially-traded goods will bear the same ratio to the prices of traded goods in different countries. Consequently, there is no ground for assuming that, even in the absence of one-sided obstacles to trade, the rate of exchange which conforms to purchasing power parity, as defined by Professor Cassel, will be identical with, or even in the close neighbourhood of, the equilibrium rate. The positive doctrine of purchasing power parities cannot, therefore, be maintained without reservations and qualifications so extensive as practically to destroy it.

Though, however, Professor Cassel has formally asserted the positive doctrine, the general trend of his writings makes it clear that the comparative doctrine is the thing to which he really attaches importance. This doctrine is not open, except in a comparatively slight degree, to the objection that has just been urged against the positive doctrine. It is true that, as between two periods that are being compared, the prices of non-traded goods in one country *may* have moved up or down relatively to the prices of traded goods, though no corresponding movement has taken place in the other country. But there is no general ground for expecting that this sort of change will take place, at all events over short periods, on any large scale. On the other hand, in so far as price movements are brought about by currency causes, there is definite ground for expecting that traded and non-traded goods will move more or less parallel to one another. Hence, the inclusion of non-traded goods in Professor Cassel's calculations does not much impair the value of the calculations as indices of *changes* in the norm of exchange. The comparative doctrine of purchasing power parities thus passes the preliminary test, before which the positive doctrine broke down. Nobody would contend, however, that the indications it affords are more than approximate :

[1] *Depreciated Exchange and International Trade* (U.S. Tariff Commission), p. 3.

and it is, therefore, desirable to distinguish, so far as may be, the principal ways in which, if followed uncritically, it is liable to mislead.

Professor Cassel has himself called attention to the consequences of introducing, between the base period and the period under investigation, one-sided obstacles to trade. These need not cause any appreciable change in the norm, or equilibrium rate, of exchange: but they must cause an appreciable change in purchasing power parity. Suppose, for example, that a tax is imposed on goods entering America from England, and no corresponding tax is imposed on goods entering England from America. English export goods will rise in price in America relatively to England, and no corresponding change will take place in American export goods. This means that dollar prices of goods in general in America rise relatively to sterling prices of goods in general in England: that is to say, the rate of exchange representing purchasing power parity is altered in the sense that a dollar is worth less stuff, as compared with sterling, than before. The same thing happens if export duties enhance the cost of sending English goods to America and there is no corresponding obstruction to the sending of American goods to England. The same thing happens again if a subsidy is accorded to cheapen American goods coming to England and there is nothing to balance it on the other side.

Professor Cassel implies that, if the obstacles imposed upon trade are two-sided, this shifting of the purchasing power parity, in the face of a steady norm of exchange, will not take place. In certain circumstances that is true. If English export goods in America play the same part in determining the index number of general prices in America that American export goods in England play in determining the index number of general prices there, the imposition of similar import or export duties in the two countries may be expected to leave the ratio between the two index figures substantially unchanged. But the condition on which this result depends is not always satisfied. If, for example, the only English export good was coal and this exchanged abroad for a hundred different sorts of imports, all of which were reckoned as of equal weight with coal in both the English and the foreign index numbers used in our inquiries, a 10 per cent. foreign tax on all exports *plus* a 10 per cent. English tax on all exports would involve a

much larger rise in the English than in the foreign index number, thus implying a shift in purchasing power parity. In like manner, if the imports of a country are of such a sort that transport charges play a large part in their value, while the exports are of such a sort that these charges play only a small part, a general rise in transport charges both ways will cause the index number of home prices to rise more than the index number of foreign prices, and so will bring about a change in purchasing power parity.

This reference to the technique of index numbers suggests yet another point. Imagine for a moment conditions such that changes in the ratio between the index numbers of sterling and of dollar prices would truly measure changes in the norm of exchange, *if* the index numbers were really based on the prices of all sorts of commodities. We have then to observe that the prices which enter into actual index numbers are not all prices, but a narrowly limited sample of them—a sample the scope of which is determined by the existence or otherwise of price statistics accessible in, and comparable between, different periods. Any actual index number, therefore, is liable to "error," in the sense that the changes it indicates may be different from the changes that a complete index number would record. It is not possible to determine in any general way the magnitude of the error that should be reckoned with. But that it is substantial is shown by the large differences that emerge when different index numbers, among those now commonly employed, are used to make the same calculation. Thus, in August, 1920, as against 1913, American prices as calculated for the Bradstreet index number had risen 25 per cent. more than American prices as calculated for the Bureau of Labour index number: and English prices as calculated for the Board of Trade index number had risen 9 per cent. more than English prices as calculated for the *Statist* index number. Variations of this sort in different index numbers are, of course, carried over into the measures of change in purchasing power parity that are built on them. It follows that estimates of alterations in the norm of exchange, based on calculations of purchasing power parity, cannot, at best, be more than very rough approximations.

We have now to consider lapses from alignment between the actual rate of exchange and the norm of exchange—lapses, which, under an effective gold standard, cannot in general pass beyond the

specie points, but under paper standards have no fixed limits. Such lapses may occur either because, the norm of exchange being given, the actual exchange rate has been twisted away from it, or because, the actual exchange rate being established at the norm, conditions have come about which destroy that norm and establish a new one. These two sorts of lapse have now to be discussed in turn. We may take first lapses due to a twisting of the actual rate of exchange away from an established norm.

At each moment there are certain debts falling due for immediate payment by Englishmen in dollars. These payments absolutely must be made somehow on pain of bankruptcy, so that, from the point of view of the moment, the English demand for dollars is always very inelastic ; and the same thing applies (we may simplify the exposition by neglecting three-cornered trade and so forth) to the American demand for sterling. In these circumstances, if the quantity of dollar bills on the market is not sufficient to enable English debtors to meet their obligations in America, some Englishmen with debts to pay will have to obtain command over dollars either by selling securities abroad, or by borrowing abroad, or by selling gold, or by selling the actual money of their own country (if this is not gold) abroad. The extent to which these expedients have to be relied on at any moment will be greater, the wider is the difference at that moment between the flow of debts and the flow of claims coming to maturity. It may be large, because, for example, a country's imports are being brought in now while her exports mainly take place at a later season, or because a past debt is falling due for payment, or because an instalment of an indemnity that has not been fully prepared for is falling due, or for some more special reason. Given the extent of the gap between debts and claims that has to be filled at any moment, the extent to which the exchange will move against a country depends upon the difficulty and cost involved in obtaining command over dollars by the various expedients summarized above. Plainly, if gaps have been recurring continually for a long period, the securities available for sale abroad, the credit that enables foreign loans to be raised and the stocks of exportable gold will have been more and more depleted, so that the difficulty of filling each successive gap is greater than the difficulty of filling the preceding one, and the exchange moves more and more against us. Similarly,

if paper money has been sold abroad again and again to fill recurrent gaps, foreign speculators will reckon more and more on a continuing depreciation of this paper, and their appetite for further purchases of it, except on extraordinarily favourable terms, will become sated. Consequently, so long as these gaps go on recurring, the actual rate of exchange falls further and further below the current norm. If the government by decree bars resort to one or other of these expedients for obtaining dollars—if, for example, it bars the sale of securities abroad or the export of gold—the cost and difficulty of getting dollars will be increased and the exchange will be driven down still further.

Lapses from alignment between actual exchange and the norm of exchange due to an alteration of the norm itself *may* come about if an expansion of currency and credit in one country raises the general price level there while no corresponding movement takes place in other countries. In these circumstances the norm of exchange *must* be altered, and, consequently, alignment *must* be disturbed, unless the actual rate of exchange is altered in the same act by direct process. It is sometimes asserted that the actual rate of exchange *cannot* be altered by direct process, but only through an expansion of imports and contraction of exports,[1] involving, incidentally, a purchase of goods by the country with the expanded currency in exchange for securities or loan scrip. It does not seem to me that this is necessary. Suppose that, owing to an expansion of paper money, the English price level in sterling (gold export being prohibited) doubles. Then importers and exporters will both know that, if American stuff is to exchange on the same real terms as before against English stuff,—and there is no reason for anybody to accept different real terms—a dollar must buy twice as much sterling as before. In these circumstances both sides may be ready at once to accept these new terms without any mediating movement of trade. Foreseeing what must happen very shortly, if this mediating movement takes place, they may make it happen forthwith without the movement being called for. If they do not do this, there will be an alteration in the real ratio of interchange between the goods of the two countries, for which a mere monetary change in one of them is not a sufficient

[1] This view is suggested, though with guarding phrases, in Mr. Keynes' *The Revision of the Treaty*, p. 93.

cause. If they do do it, no question of the effect of a lapse from alignment can arise, because, owing to the synchronous movement of the norm of exchange and the actual rate of exchange, no lapse has occurred. In practice, however, I do not deny that lack of foresight on the part of traders will generally interfere with a perfect parallelism of movement, so that, as a matter of fact, a currency expansion in one of the countries is likely to be responsible for *some* lapse from alignment.

Whenever there is a lapse from alignment, however caused, between the actual rate of exchange and the norm of exchange, there are automatically called into play corrective influences. The citizens of the country whose exchange is depreciated below the norm can make more profit by selling their goods abroad than at home, while foreigners, on the contrary, can make more profit by selling theirs in their own country than in the country of depreciated exchange. Hence, exports from that country will tend to increase and imports to diminish, with the result that claims on dollars (in terms of which we are supposing the other exchange to have depreciated), come to be created at a greater rate relatively to debts in dollars than was happening before. If, hitherto, a country, whose exchange has become depreciated below the norm, has been obtaining goods abroad by borrowing, it is discouraged from doing this any longer: if, hitherto, trade has been balanced, it is impelled to sell goods abroad against securities or promises to pay. These processes continue until alignment is restored and a new equilibrium is established, under which, very probably, the relative values of import and export goods in both countries are somewhat different from what they were before. Conditions are, indeed, conceivable in which these corrective influences would not work. We can imagine a country the demand for whose goods abroad is so inelastic that an enlarged export of them would yield a smaller, and not a larger, claim to dollars. If that country had no imports available for reduction, but the whole of its foreign trade consisted, for example, of exports sent out to purchase the means of paying an annual dollar indemnity, the fall in exchange would not set forces in motion to close the gap of future indebtedness. But these abnormal conditions are exceedingly unlikely to be realized. In general—the glaring exceptions of the moment need not be particularized—the fall

of actual exchange rates below the norm is not only a *sign* that trade is out of balance, but also an effective agency for bringing it back to balance.

The period during and since the war has afforded many examples of action taken by governments with the object of interfering with and modifying the working of this agency. Among these examples we may distinguish between (1) action designed to reduce the gap of immediate indebtedness, which is responsible for making exchange fall below the norm, and (2) action designed to prevent the corrective influences, which a fall below the norm, when it has taken place, sets in motion, from operating along certain routes, or, possibly, from operating at all. These two sorts of action have now to be studied in turn.

Action designed to reduce the gap of immediate indebtedness by direct process embraces prohibitions against the export of capital, that is, against the turning of resources, which might have been used to pay for imports, into foreign investments, and prohibitions against the import of luxuries. The object of these devices is to secure that the gap of indebtedness, which would otherwise be closed *eventually* by blind forces, shall be closed *immediately*, or, at all events, as soon as possible, by a force that is intelligent and can perceive differences in social advantage where money profits are the same. The technique of these devices is described at length in the volume of the League of Nations papers, prepared for the Brussels Financial Conference, entitled *Exchange Control*. The most obvious devices are direct prohibitions against certain classes of imports and against the export of capital generally. But, as a rule, it is also found necessary to adopt other measures with a view to preventing evasion of these prohibitions. Thus, exporters of goods or securities are compelled to hand over the proceeds of their sales in foreign currency to a central exchange institution, which, in turn, sells exchange to importers of permitted imports. Unless some arrangement of this kind is made, it is impossible to ensure that the proceeds of export or security sales will not, in one way or another, come to be invested abroad. It should be observed that, while a policy of stopping the export of capital *must*, if successful, improve the current, though not necessarily the ultimate, trade balance, a policy of restricting imports *may*, in conceivable, though improbable, conditions, defeat itself, by

causing resources to be withdrawn from the manufacture of export goods, in order to make substitutes for the extruded imports, to such an extent that the export side of the trade balance is lowered more than the import side. Apart from this, however, government action of the above types should prove *pro tanto* effective in bringing the actual rate of exchange nearer to the current norm.

Action designed to obstruct the operation of the corrective influences, which a fall in exchange below the norm sets in motion, sometimes takes the form of governmental prohibition against the export of certain things, which their owners would be tempted to send abroad under the influence of the low exchange, and the sending of which would help to fill up the gap of immediate indebtedness. Thus, many countries, fearing the exhaustion of their stocks, have prohibited the export of gold; and certain countries, with exchange rates much below the norm, have prohibited the export of certain necessary goods. The idea behind these prohibitions is that there are certain things the loss of which would constitute so great a social disaster that it is impossible in any circumstances to sacrifice them. Thus, after the war Germany was threatened with a selling-out of essential instruments and materials of her industries, of which the end must have been ruin and starvation. It was imperative to hold firmly to these things. To do this, however, by means of export prohibitions, necessarily meant a still further depreciation of the mark exchange below the current norm, and a further lowering of the real price at which those German goods that it was still permissible to export sold against foreign goods.

XVI

THE EXCHANGE VALUE OF LEGAL TENDER MONEY

I

THE purpose of this essay is to give, in a general and somewhat abstract form, an account of the influences by which the exchange value per unit of a country's legal-tender money in terms of commodities is determined. But "commodities," or as some prefer to say, "commodities in general," is a vague phrase. In the chapter on "The Measurement of the National Dividend" in my *Economics of Welfare* the problem of its proper interpretation for various purposes was discussed. For the present purpose it is convenient to adopt a plan similar to that employed by Dr. Marshall in another connection, and to assume that the value of all commodities, other than money, in terms of one another is determined independently of the value of money. On this assumption, the value of any combination of commodities can be cited in terms of any single commodity. The aggregate of all commodities is then represented by so many bushels of wheat; and the value of legal-tender money by the number of bushels of wheat which a unit of it will purchase. This value is governed, like the value of everything else, by the general conditions of demand and supply. An investigation of the causes upon which the value of legal-tender money depends means, therefore, just as it would do if we were concerned with lead or tobacco, a detailed analysis of these two groups of forces. In developing this analysis I shall count as legal-tender money, full standard money, notes that are legal tender from *any* debtor in unlimited amount—to be

[1] Reprinted in part from the *Quarterly Journal of Economics*, November, 1917.

called henceforward Government notes—and token coins, which are legal tender from any debtor up to a fixed maximum amount. I shall exclude the notes of ordinary banks or even the notes of central banks, when these, as with Bank of England notes, though legal tender from any debtor except the issuing banks, are not legal tender from the bank itself.[1]

II

The Demand for Legal-Tender Money

In the ordinary course of life people are continually needing to make payments in discharge of obligations contracted in terms of legal-tender money. Some of these payments have to be made across the counter, as when commodities are bought for cash; others at some specified date after purchase, as when they are bought on three-months' bills; others at some unspecified date after purchase, as when they are bought vaguely on credit. Besides the flow of obligations that are thus continually maturing against them, most people have also a flow of claims that are similarly maturing in their favour. But the obligations and the claims that become due at any moment seldom exactly cancel one another, and the difference has to be met by the transfer of *titles to legal tender*. Under this name I include actual legal tender as defined above, bank-notes, and bank balances against which cheques can be drawn. If a person is unable to meet his obligations from these sources when they fall due, he will certainly be inconvenienced and will possibly be rendered bankrupt. Hence, everybody is anxious to hold enough of his resources in the form of titles to legal tender both to enable him to effect the ordinary transactions of life without trouble and to secure him against unexpected demands due to a sudden need or to a rise in the price of something that he cannot easily dispense with. For these two objects, the

[1] In view of the intricacies of the paper-money policy of various Governments these definitions must be interpreted broadly. In some countries there are in existence notes that are full legal tender from all debtors but are not technically Government notes. In the United Kingdom Treasury Notes are not technically full legal tender from all debtors, being redeemable with gold on demand. But the rule prohibiting the export of gold and the melting of sovereigns deprives this proviso of any real effect. In the circumstances it is awkward and arbitrary to treat Treasury Notes as legal tender in a fuller sense than Bank of England notes. Awkwardnesses of this sort do not, however, affect the principles of our analysis. The form of it can be readily adapted to any definition of legal tender money that the reader may prefer.

provision of convenience and the provision of security, people in general (I do not here include bankers, whose special position is discussed later) elect to hold in the form of titles to legal tender the aggregate value of a given quantity of wheat. In other words, they offer a demand price per unit for titles to legal tender equal to the aggregate quantity of wheat that they have determined upon, divided by the aggregate number of legal-tender units for which titles are forthcoming. There is thus constituted at any given moment a definite demand schedule for titles to legal-tender money. Let R be the total resources, expressed in terms of wheat, that are enjoyed by the community (other than its bankers) whose position is being investigated; k the proportion of these resources that it chooses to keep in the form of titles to legal tender, M the number of titles to units of legal tender, and P the value, or price, per unit of these titles in terms of wheat. Then the demand schedule just described is represented by the equation $P=\frac{kR}{M}$. When k and R are taken as constant, this is, of course, the equation of a rectangular hyperbola.

Before we proceed further, it will be well to make clear the relation in which that equation stands to the "equation of exchange" made familiar in Professor Irving Fisher's treatment of the "quantity theory" of money—an equation, by the way, which would itself be more properly described as an equation of demand. At first sight, it might be thought that the two formulæ are in violent conflict. But, in fact, it is easy to show that they are perfectly consistent with one another. In the formula of the "quantity theory" T represents total transactions, M the number of units of titles to legal tender, V the velocity of circulation of these units, and π the price per unit of "commodities" in money. The "equation of exchange" then is $\pi=\frac{MV}{T}$. Now, since P in my equation is the price of money in terms of things and π in the "quantity theory" equation is the price of things in terms of money, it follows that $P=\frac{1}{\pi}$.

Hence $\frac{kR}{M}=\frac{T}{MV}$, or $kV=\frac{T}{R}$.

Evidently in given conditions of production and trade $\frac{T}{R}$ may be taken as a constant. It follows that $k V$ also is a constant; that is to say, a given multiplication of V implies a corresponding division of R. So soon as this is perceived, the relation in which the two equations stand to one another is apparent. When, *ceteris paribus*, people decide to keep half as much of their resources as before in the form of titles to legal tender, this *means* that the velocity of circulation is doubled. This has been explained very clearly by Dr. Marshall:

> "If a person, whether in the course of trade or for his own use, buys for currency goods and services of the value of ten thousand bushels of wheat during a year, and if he retains on the average purchasing power in the form of currency to the value of one hundred bushels, then so far as he is concerned, currency will circulate one hundred times in the year. If he keeps twice as much purchasing power, that is, to the value of two hundred bushels of wheat, then currency will, so far as he is concerned, circulate fifty times in the year, that is, only half as rapidly. Thus generally, *ceteris paribus*, any increase in the ready purchasing power that people choose to keep will diminish proportionately rapidity of circulation, and *vice versa*."

This relation between the Fisher formula and my formula can be displayed, as it were, in action if we imagine a decline in business confidence to take place in a community where the quantity of money in existence is rigidly fixed. On the Fisher analysis we should say that people, no longer feeling so optimistic about the future, elect to hoard titles to legal tender. This hoarding implies diminished velocity of circulation, and, in consequence of this diminished velocity, prices fall, though the quantity of titles to legal tender is unchanged. Extending the same analysis to more actual conditions, we should say that the tendency to hoarding would make itself felt even when the quantity of titles to legal tender also fell, and that, therefore, in a period of depression prices should fall more than in proportion to the quantity of titles to legal tender outstanding. On my analysis we should say: People being less confident elect to hold a larger proportion of their resources in the form of titles to legal tender; this means that everybody is willing to offer more things to get hold of these titles; this means that prices fall and go on falling until the old stock of titles to legal tender at the new price level comes to represent

the new proportion of their real resources that people choose to hold in this form. If the actual quantity of titles to legal tender is being diminished at the same time, prices must fall more than correspondingly; for, if they only fell correspondingly, people would be holding the same, and not a larger, proportion of their resources in the form of titles to legal tender.

It is thus evident that there is no conflict between my formula and that embodied in the quantity theory. But it does not follow that there is nothing to choose between them. The one is not, of course, any "truer" than the other. They are both equally true. The difference is that my formula focuses attention on the proportion of their resources that people choose to keep in the form of titles to legal tender, instead of focusing it on "velocity of circulation." This fact gives it, as I think, an advantage, because it brings us at once into relation with volition—an ultimate cause of demand—rather than with something that seems at first sight accidental, arbitrary and more or less in the air.

From the demand schedule for titles to legal tender there is derived a demand schedule for actual legal tender. The titles to legal tender that people hold are kept in two forms, actual money (including Government notes and token coins) in their pockets and tills, and bank money in the form of bank balances and bank-notes. If bankers retained full cover of actual legal tender against the balances and notes, the derived demand schedule for legal tender would be exactly the same as the direct demand schedule for titles to legal tender. In fact, however, bankers only keep a money reserve equivalent to a part of the balances that they hold for customers and the notes they issue to them. Hence, whereas that part of their immediately available resources, which people choose to keep in cash, constitutes a demand for actual legal tender equal to the corresponding demand for titles to it, that part which they keep in bank-notes and bank balances gives rise to a demand different from, and smaller than, itself. The magnitude of the total derived demand depends, therefore, in part, upon the choice that the general body of the public exercises in this matter.

The derived demand schedule for actual legal tender is capable, like the original demand schedule, of being represented by an algebraic formula. Let M this time be the number of units of actual legal tender that there are. Let c be the proportion of his

titles to legal tender that the representative man chooses to keep in actual legal tender (including Government notes and token coins), so that $(1-c)$ is the proportion that he keeps in bank-notes and bank balances; and let h be the proportion of actual legal tender, in the same sense as above, that bankers choose to keep against the notes and balances held by their customers. Then the derived equation of demand for actual legal tender will be:

$$P=\frac{kR}{M}\{c+h(1-c)\}, \text{ or } M=\frac{kR}{P}\{c+h(1-c)\}.$$

When c and h as well as k and R are taken as constant, this equation, like the simpler one from which it is derived, is the equation of a rectangular hyperbola.

I propose now to clothe the dry bones of this formula by a brief separate study of each of the variables which it includes. First consider R, representing the community's total real resources of commodities, expressed, for convenience, in terms of so many bushels of wheat. My formula shows that, other things being equal, the larger this variable is, the higher will be the demand schedule for legal-tender money. It is, therefore, important to observe that R is likely, in general, to be increased by developments that bring the forces of nature more effectively under man's control; such as an increase in the efficiency of the people individually, or an increase in their collective efficiency either through mechanical inventions or through inventions in business organization. This generalization does not, however, hold good of inventions that facilitate the production of commodities for which the elasticity of demand is less than unity; for these inventions, though they cannot cause the output of the commodities to which they apply to be diminished, and, though, by releasing productive resources, they must cause the output of some other commodities to increase, yet are bound to reduce the wheat value of the sum total of commodities in a slight degree. This, however, is a technical point, and does not affect the broad drift of the argument.

Secondly, consider the variable k. When the aggregate wheat value of the community's resources is given, the quantity of wheat value kept in the form of titles to legal tender is determined by the *proportion* of his resources that the average man chooses to keep in that form. This proportion depends upon the convenience

obtained and the risk avoided through the possession of such titles, by the loss of real income involved in the diversion to this use of resources that might have been devoted to the production of future commodities, and by the satisfaction that might be obtained by consuming resources immediately and not investing them at all. These three uses, the production of convenience and security, the production of commodities, and direct consumption, are rival to one another. For our present purpose, the use of immediate consumption need not be particularly considered. Its presence mitigates, but never does more than mitigate, the effect of the principal causes with which we have to deal. Practically, the critical question for a business man—and the same class of question has to be asked by everybody—is, as Professor Carver well observes:

"Will it pay better to have one more dollar in his cash drawer and one less on his shelves, or will it pay better to have one less dollar in his cash drawer and one more on his shelves?"[1]

It is easily seen that the satisfaction yielded by successive units of resources devoted to future production diminishes as the number of units so devoted is increased. For nobody denies that the satisfaction a man obtains from the one-hundredth unit of any commodity is likely to be less than he obtains from the ninetieth, and nobody supposes that production in general obeys the law of increasing return in a measure adequate to counteract this tendency and to cause the *fruits* of the tenth unit of resources invested in production to yield more satisfaction than those of the ninth. An exactly analogous proposition holds good of the satisfaction yielded by successive units of resources held in the form of titles to legal tender. So far as these are desired as a means for facilitating exchange, this is well shown in the following passage:

"Some exchanges could scarcely be made at all without the use of money. In these cases the utility of money is very high, and would equal the utility of the exchanges themselves; that is, the advantage of being able to exchange, over the disadvantage of not being able to make the exchange at all. Some exchanges could only be made with great difficulty without money, in which cases the utility of money would be considerable. Some other exchanges could be made with comparatively little difficulty, in which cases the utility of money would be inconsiderable. And some

[1] *American Economic Association Papers*, 1905, p. 131.

exchanges could be made as easily without money as with it, in which cases the utility of money will be *nil*." [1]

Reasoning of the same general kind clearly holds good in so far as titles to legal tender are desired as a means of providing security. Thus the curves that represent the desire for resources to be used in production and in titles to legal tender respectively both slope downward; and resources will be devoted to the two uses up to the point at which the last unit of resources devoted to each of them yields the same quantity of satisfaction. It follows that, other things being equal, the variable k will be larger, the less attractive is the production use and the more attractive is the rival money use of resources.

The chief factor upon which the attractiveness of the production use depends is the expected fruitfulness of industrial activity. If a man understands that, in consequence of mechanical inventions or of an expected rise in the prices of the commodities in whose production he is engaged, a given quantity of resources invested in his business will yield an abnormally large return, he will be more anxious than he otherwise would be to devote resources to production. In the converse case he will be less willing than he otherwise would be to do this.

The factors which determine the attractiveness of the money use are more complex. The most obvious is the convenience to be got from a holding of titles to legal tender in the ordinary business of life. This partly depends upon the intervals of time at which people are accustomed to be paid for their services. If, for example, a man is paid £365 once a year, he is practically certain, on the average, to keep a larger proportion of his resources in titles to legal tender than he would do if he was paid the same amount in daily portions of £1 each.[2] It also depends in part upon how far the organization of industry is adapted to allow the discharge of debts without resort, direct or indirect, to titles to legal tender. The importance of this consideration is well brought out in Sir Theodore Morison's account of the industrial organization of an Indian Province:

"A very large number of exchanges," he writes, "were in old days

[1] Carver, "The Concept of an Economic Quantity," *Quarterly Journal of Economics* May, 1907, pp. 443–444.

[2] Cf. Fisher, *The Purchasing Power of Money*, p. 84.

effected by means of barter. Rents were paid in kind, and debts between the cultivator and the money-lender, though reckoned in terms of money, were usually settled in grain. The wages of field labourers and of the village artisans were paid almost entirely in grain, and it was, therefore, possible for the cultivator in former days to make a large number of transactions in the year without employing money at all. Now that the self-sufficiency of the village is being impaired, the occasions for the use of money are largely increased. The tenant usually pays his rent in money; he also employs money, along with bundles of corn, to pay his labourers; a few articles of foreign manufacture are coming into common use, which are purchased at fairs, and for them money is the only payment accepted."[1]

In the modern industrial world, the tendency is, perhaps, on the whole, in the opposite direction. There seems to exist a good deal of cross trade between firms worked by means of book-debts. When a firm buys from one party and sells to another, bills drawn on its debtor are passed forward to its creditor, so that titles to legal tender are required to discharge only one bill instead of two of a given amount. There are also in vogue many elaborate devices, such as the Stock Exchange Clearing House and the Railway Clearing House, for carrying still further this method of economizing the use of bank money, while on the established settling days debts are so far cancelled that only differences have to be directly met. Against these influences has to be set the tendency to specialization of processes to different firms, involving, as it does, an increase in the number of transactions that have to be undertaken prior to the completion of many finished goods. Under the same head falls the increasing volume of speculation and other business indirectly associated with industry that is done on the stock exchanges, and for which, of course, a money basis is needed.

But the attractiveness of the money use does not depend only on the contribution which a holding of titles to legal tender makes to business convenience. It is also affected by another important circumstance. Any holding of titles to legal tender is always capable of being exchanged against some quantity of commodities. Clearly, if it is expected that the quantity of commodities for which, say, a note or a bank balance representing £1 can be exchanged will be greater a year hence than it is now, the inducement to hold

[1] *Industrial Organization of an Indian Province*, p. 306.

titles to pounds now will be increased; and, conversely, if it is expected that a pound will buy fewer commodities a year hence, it is diminished. Thus any expectation that general prices are going to fall increases people's desire to hold titles to legal tender; and any expectation that they are going to rise has the contrary effect. For this reason the suspicion that a nation will fail to maintain or to restore the full convertibility of a paper currency immediately lowers the demand for that currency in terms of wheat, which we are here taking as representative of things in general.

Consider next the variable *c*, that is to say, the proportion of their titles to legal tender, including Government notes and token coins, that people choose to keep in actual legal tender in their own pockets and tills. The choice between legal tender in this sense and bank balances—for the moment we may ignore bank-notes as being of secondary importance—is determined in the main by custom and convenience, and people's habits in this matter are not in all countries fixed. Thus, Professor Irving Fisher writes of recent conditions in America:

> "Some day in the future, when the use of cheques has grown up to its work, it would not be strange if the ratio of cheques to money should remain fairly constant. At present, however, we are passing through a long transition period, during which the device of using cheques instead of money is being extended with prodigious rapidity. This is the dominant feature of the present situation and forms the chief basis of the forecast here attempted. All nations—even those which have used cheques for generations—are making a continually larger use of cheques relatively to money." [1]

We may note the following points: First, the proportion of titles to legal tender held in the form of actual legal tender will be smaller, the more people have banking accounts, and, therefore, are *able* to keep their titles to legal tender in the rival form of bank balances. The more people have banking accounts, the more widespread and the better organized the banking system will become. The resultant development of branch banks and the cultivation of small accounts in turn caused the numbers of the bank-using public to increase. The chief reason why the proportion of coin to bank money used in India is so much larger than

[1] *American Economic Review*, September, 1912, pp. 547–8.

in England is that in the former country the banking system is very imperfectly developed. Secondly, the proportion of titles kept in actual legal tender will be smaller, the more readily cheques are accepted in ordinary transactions :—and readiness to accept cheques becomes more widespread as small tradesmen come to have banking accounts and high-waged employees follow their example. Thirdly, this proportion will be smaller the longer shopkeepers allow their accounts to run before requiring payment; for it is much more convenient to pay large sums by cheque than by coin. The average size of accounts is greater, the larger the proportion of rich people in the community :—the very rich pay scarcely anything in currency. It is also greater the more widespread is the custom of paying for purchases through accounts covering a series of purchases, or through deposits paid in advance, rather than over the counter at the moment of purchase. Lastly, the proportion will be smaller, the more convenient and less costly is the machinery by which payments can be made direct from bank balances, without resort to actual legal tender by the paying public. The fact that cheques are subject to a small tax is relevant in this connection. Of course, if there is any question of the solvency of banks, the risk of loss, when titles to legal tender are kept in the form of bank balances, strongly favours the alternative form—an incident that in some panics, like the 1907 panic in the United States, may become of very great significance. It is interesting to observe that during the Great War both in France and Germany the banks made special efforts to induce people to resort more largely to cheque payments. In Switzerland, even after the war was over, the Post Office stamped on all letters the legend, "Payment by cheque saves notes and coin." [1] Finally, the comparative use of currency and of bank balances may be affected by movements of a general kind that have not, *prima facie*, any connection with it. Thus, "the calling up of men for military service, and, subsequently, the large removal of women from their homes for munition making and other purposes during

[1] Cassel, *Money and Foreign Exchange after* 1914, p. 32. Behind this policy there seems to have been a certain amount of confused thinking. It was desired to restrict the issue of notes as far as possible, because it was recognized that "inflation" raises prices. But it was not understood that, with a given volume of notes, the greater the proportion of cheques used, the higher prices will rise. To aim at restricting note issue by an arrangement that has the same effect in raising prices as note issue has is to confuse the end and the means.

the recent war greatly increased for the time the demand for currency, because the members of families, when separate, found it convenient to keep much more currency by them in the aggregate than when they were living at home and together."[1]

There remains the variable *h*, that is the proportion of actual legal tender (including Government notes and token coins) that the banking system chooses to keep against its liabilities to customers. The influences that determine this proportion are similar to those that determine the variable *k*, namely the proportion of their resources that people in general (other than bankers) choose to keep in the form of titles to legal tender. Here, as there, the governing factors are, on the one hand, the convenience obtained and the risk obviated by resources held in the form of a money reserve, and, on the other hand, the advantage that is sacrificed when resources are locked up in this form. It is obvious that the advantage sacrificed is determined by that general productivity of industrial investment which has already been referred to in connection with the variable *k*. The convenience and security that banking reserves provide are, therefore, all that need be discussed here. The benefit under these heads that a given quantity of resources will yield depends on the following principal considerations.

The first factor is the internal organization of the banking system for economizing the need for large reserves. Means to this end are the elaborate arrangements of clearing-houses, by which cross-debts are balanced against one another, and the further device of a banker's bank associated with the clearing-house in such wise that the net balances that remain over after the process of cancellation is complete can be discharged by simple entries in the books of the said bank. Arrangements of this kind not only save the use of legal tender directly, but also indirectly. By bringing the banks together into some sort of unity, they enable their reserves to be used at need for mutual support. This means that the aggregate reserves, instead of having to guard against the sum of the maximum separate drains that are likely to be made upon the several banks individually, need only guard against the maximum drain that is likely to be made upon the sum of these banks collectively. A much smaller aggregate reserve is necessary for the latter than for the former of these purposes. Hence, a

[1] Cannan, *Economic Journal*, 1921, p. 486.

one-reserve system can be worked much more economically than a many-reserve system. The English banks as a body, because of the centralization of a large part of their ultimate reserves in the Bank of England, can safely keep these reserves much smaller relatively to their liabilities than the American banks, at all events before the recent reforms, were able to do.

The second factor is the kind of claims of which banks' liabilities are predominantly made up. If a large part of them are claims by foreign depositors, who are likely to require legal tender for shipment abroad, or by native depositors engaged extensively in foreign trade, actual legal tender—when the legal tender is also an internationally recognized money substance such as gold—is liable to be called for in ways that no elaboration of clearing-house or other devices can prevent.

The third factor is the proportion in which bankers' liabilities are in bank-notes in the hands of the public or in bank balances. This is important, because in modern States the law tends to insist rigorously upon the retention of large reserves against notes, while (except in the United States) leaving the question of reserves against deposit accounts to the banks' discretion.

Lastly, account must be taken of the temperament of the people in respect of liability to panic and so on, and of the general state of confidence in the banking system. New banks among an impulsive people will need to keep a larger proportionate reserve than old and well-tried banks among an unemotional people.

After this review of the several elements embodied in the formula set out above, it is important to note that, when, in the actual world, a cause comes into play that affects the demand for legal-tender money, it is not at all likely to operate through one only of the various *foci* of causation that are distinguished in the demand formula. The analysis which that formula embodies enables us to distinguish and to discuss separately the principal elements out of which the demand schedule for money is made up. It provides, in short, at any moment of time a true *anatomy* of demand. But it does *not* imply that in the actual world changes in the elements that are summarized under the different letters of the formula occur independently. It is perfectly legitimate to draw a picture of the bones of a child's body, to measure how much each bone contributes to the total

height, and, if we will, even to calculate what difference would be made to that height if the length of any given bone were doubled and everything else remained the same. But it is not legitimate—on the contrary it is altogether ridiculous—to proceed on the assumption that, as a matter of fact, any one bone will double in length while all the others remain unaltered. For we know that in growth there is a certain harmony and that many of the changes that occur in any one part are the result of general causes that affect other parts also. This is true of the economic body no less than of the human body. A general industrial expansion does not involve merely an expansion of resources—a growth in the variable R. It also involves the establishment or extension of banks and banking facilities, and this means that the proportion in which people use bank money relatively to actual legal tender is increased, or, in other words, that the variable c is diminished. Nor is this all. Industrial expansion, since it carries with it larger real income, may easily involve an increase in the proportion of their resources that people choose to keep in the form of titles to legal tender; for a very poor man cannot afford the luxury of money in hand. If this happens, the same cause that has brought about an increase in the variable R will have affected the variable k in the same sense. Yet, again, k (the proportion of their resources that the public keep in titles to legal tender) and h (the proportion of actual legal tender that bankers keep against their liabilities) are liable to be affected by common causes. A boom in business confidence lessens, whereas a general apprehension of panic increases, both of them. These connections are, of course, set out merely as illustrations, and do not profess to be exhaustive. They may suffice, however, to drive home the point that the different letters of my demand formula do not represent channels each of them reserved, as it were, for the separate action of special private groups of causes. They are rather public channels along all of which a single cause may operate at the same time.

III

The Supply of Legal-Tender Money

The formula set out in the preceding section refers exclusively to demand. But, in order to determine the value of anything,

an equation of supply also is needed. What this is depends upon the substance which a country decides to use as legal-tender money and the rules under which it is manufactured. The principal alternatives are as follows.

First, the quantity of legal-tender money available at any time may be fixed, as in a country making use exclusively of inconvertible paper notes, by the arbitrary decision of the government. Under an arrangement of this kind, the supply curve of legal tender is a vertical straight line fixed in whatever position the government may choose. Its equation is $M = D$, where D is a constant.

Secondly, some part of the total quantity of legal-tender money may be arbitrarily fixed. In practice this is the more usual arrangement. In Germany and France, before the war, alongside of the gold currency, many old silver coins circulated as full legal tender. In Germany these used to amount to some twenty million pounds.[1] In the United States, "gold and silver are legal tender equally with greenbacks, or government notes issued during the Civil War, and the treasury notes issued against the deposits of silver bullion under the Sherman Law of 1890."[2] In Austria inconvertible paper used to circulate alongside of gold. Under these arrangements the shape of the supply curve is the same as it would be if the arbitrarily regulated part of the supply did not exist; but the whole curve is pushed further to the right. Its equation is $M = \{D + f(P)\}$. It is, thus, less elastic than it would be in the absence of the arbitrarily fixed part of the circulation.

Thirdly, the whole of the legal-tender money in the country may consist of one substance coined freely at the Mint, and there may be no difficulties in the way of the import and export of this substance. In that event the quantity of legal tender available in any country in response to a given wheat price per unit is equal to the quantity of the substance in the world *minus* the quantity absorbed in other uses, whether these uses be the currencies of other countries or the arts or anything else whatever. The supply of the world may, when the monetary substance is a precious metal, be treated, for periods of moderate length, as practically constant; for the aggregate stock in the world is very large relatively to the

[1] Pierson, *Principles of Economics*, vol. i, p. 425.

[2] Kinley, *Money*, p. 50.

total annual output, and, therefore, *a fortiori* relatively to such changes—themselves, from the nature of the industry, probably slow-working—in the annual output as may be induced by changes in (wheat) price. The demand for the currencies of other nations is regulated in the way described in the preceding division of this essay. The demand curve for the arts depends for its shape and position, like any ordinary demand curve, upon fashion, taste, the availability of substitutes, such as silver, to fulfil like artistic purposes, and so on. It relates, of course, to the total money substance employed in the arts, and not merely to the new supplies of it absorbed into them during the year. The supply curve of legal tender in the country in which we are interested is derived from the above factors. It will be more elastic, the larger is the quantity of the money substitutes that is normally used outside the currency of our country.

Fourthly, the money may consist of two substances freely coined and bound together by some legal tie, as under bimetallism and symmetallism. From the present point of view, the principal difference between moneys of this type and the simpler money discussed above is that, since there is a larger stock of money substance available, a given rise in wheat price is likely to call out a larger additional supply than would otherwise be forthcoming. That is to say, the supply is likely to be more elastic.

Finally, the money may consist of one substance coined under a seigniorage. Its supply price is then a compound of the cost of the substance contained in the coin and the seigniorage charge. Therefore, a smaller weight of coined money will be forthcoming at a given wheat price per unit than would be forthcoming if there were no seigniorage. Let the seigniorage be £s per £100, and the equation of supply of the substance of which coins are made, $M = \varphi(P)$. Then the corresponding equation of supply of actual coins will be

$$M = \frac{100 - s}{100} \varphi(P).[1]$$

[1] This implies that the wheat value of coined money under seigniorage is higher than it would have been in the absence of seigniorage, but higher by somewhat less than the amount of the seigniorage. This result is not appreciably affected by the policy the State adopts in respect of the gold collected in seigniorage. Whether the State coins it or sells it uncoined makes no difference at all. Even should the State destroy it, the difference would be imperceptible, since the amount of it is very small relatively to the total supply.

IV

Demand and Supply

It is a familiar proposition in pure economic theory that, when the equations of demand and supply for any commodity are given, the value of that commodity is found by their solution; or, in geometrical language, that, when the demand curve and the supply curve are given, its value is measured by the ordinate drawn from their point of intersection. This analysis provides a kind of scaffolding by the help of which the causes that bring about changes in value can be investigated. But that investigation is never a simple one, and, when its subject-matter is the value, not of an ordinary consumable commodity, but of money, the difficulties to be overcome are exceptionally great. We may begin by setting out some familiar propositions.

First, when the demand for legal-tender money varies in a given measure, the resultant change in the value of money (or in the level of general prices) will be less, the more elastic is the supply of legal-tender money. Secondly, when the supply of legal-tender money varies in a given measure, the resultant change in the value of money will be less, the more elastic is the demand. Since, however, the demand for money always has an elasticity equal to unity, this proposition has no practical implications. Thirdly, the conditions of demand being given, the value of money will vary less, the less variable is the supply of legal tender. When legal tender consists of something that is freely coined, freely importable and freely exportable, the supply will be less variable, the larger is the aggregate stock compared with the current output. Thus, a durable substance is superior to one that is liable to perish rapidly. Under bimetallism or symmetallism, since discoveries of gold mines and of silver mines are, in some degree, independent of one another, the supply of legal tender is likely to be somewhat less variable than under monometallism. Since, however, the fluctuation in the total supply of the precious metals due to a change in annual production must in any event be very small in a period of moderate length, this advantage does not come to much. Under an inconvertible paper currency, since the supply of legal tender can be altered to any required extent by a

mere stroke of the pen, great fluctuations in the supply, and hence in the value of money, can be brought about by State manipulation of the supply. There is, moreover, a special inducement to such manipulation, in that it enables a needy government to exact a forced loan without interest from its subjects. By issuing new notes to pay its employees it can, in effect, tax the community to the extent of the payment that it makes to them.

Let us now turn from these somewhat formal results to deeper difficulties. In our formula it has been implied that the relations between demand and price and between supply and price are single and definite, so that a given change in demand or in supply must have a single and definite result on the value of money This is not so. These relations are different according to the interval of time that we suppose to elapse between the impact of a cause and the subsequent effect. Thus, if the quantity of legal-tender money demanded at a given real price is doubled, the supply schedule relevant to immediate effects will not be the same as that relevant to later effects. The change in demand introduces a *series* of changes in the value of money, extending over a long period and different at each moment of that period. To the question how the value of money will be affected no intelligent answer can be given without reference to the time that is supposed to have elapsed since the change occurred. This point is easily illustrated. The immediate effect of a fall in the demand for legal tender—we may suppose, for the purpose of this example, that the legal-tender substance is gold freely coined—is, of course, to reduce its value in greater or less degree. But, so soon as its value has fallen, a reaction is set up by way of foreign trade. Gold having become less valuable relatively to goods in one country —say England—foreigners are stimulated to send goods to England as a means of purchasing gold, and to take out a greater proportion of their debts in the form of gold. In this way the supply of gold is diminished, and the reduction in its value that was brought about at the first shock is partially cancelled after a comparatively short time. Nor is this the only reaction. After a somewhat longer time, the fall in the value of gold will lead to an increased use of that metal in the arts of the world as well as in the currencies of foreign countries. This again checks the fall in the

value of gold. If the elasticity of the arts demand is given, the extent to which the presence of that demand checks the fall is clearly greater, the greater is the normal consumption of the money substance in the arts relatively to its consumption in the currency of the country affected: If the consumption in the arts is given, it is greater the more elastic is the arts demand. Nor is even this all. After a still longer interval, the fall in the value of gold may be expected to lead to a restriction of the industry of gold mining, which the fall will have rendered less profitable. It must, indeed, be recognized that this circumstance acts in a way somewhat less direct than is sometimes supposed. Thus, Professor Fisher writes: "It is often taken for granted that, as soon as the gold production begins to subside, the price level will begin to subside also. This is a gross error. The price level does not depend directly on the *rate* of gold production, but on the *stock* of gold and other money. The question is not one of an increasing or decreasing annual production of gold. The inflowing stream of gold is of significance only as it affects the contents of the reservoir into which it flows. A lake does not cease rising the instant the freshet filling it reaches its maximum flow. The lake will still continue to rise *so long as the inflow continues greater than the outflow*. This is often long after the inflow has passed its maximum."[1] Nevertheless, of course, in the end the check to the output of gold checks the fall in its value. The above three influences all take a certain time to work themselves out. The first is perhaps more rapid than the second, and is certainly more rapid than the third. It would be convenient if we could rigidly separate off periods relevant to each of the three, and say, for instance, that, in the first month, the first only would operate, after three months the second, and after four months the third. This, of course, we cannot do. The influences are partly synchronous and partly successive. Their collective effect is that the supply schedule, against which the changed demand impinges, displays greater and greater elasticity the longer the period over which the effect of that changed demand is being calculated. It follows that that effect is likely to be largest at first, and, thereafter, to be gradually reduced. Exactly similar considerations hold good of the effect of a change in the supply of legal-tender money. If

[1] *American Economic Review*, September, 1912, p. 536.

we suppose more gold flowing into the central bank, the rate of discount will fall, bank loans will increase and prices will rise. But the higher level of prices will cause gold to be drained out of the reserves both for internal use, since people will need more currency in their pockets to match the higher prices, and for external use, to pay for the increased imports to which the higher prices will give rise. Hence, the rate of discount will be put up again, borrowing discouraged, and prices brought down to a level, higher indeed than prevailed before the gold influx took place, but lower than prevailed immediately after that event.

There is another very important consideration. The demand and supply schedules for money are not, as they are represented to be in our formula, independent of one another. Hitherto I have tacitly ignored this fact. To do so is in accordance with the practice of economists in their preliminary exposition of the general laws of demand and supply. It is usual to write the equation of demand $p = \varphi(x)$ and the equation of supply $p = f(x)$. But, of course, economists are aware that, when the element of time is taken into account, a change in the equation of supply may react to alter the equation of demand, and vice versa. After a period of liberal supply, people may have become so accustomed to some commodity that the demand schedule is raised to a higher level than it occupied before; and, conversely, after a period of keen demand, economies of production may have been developed that will set the supply schedule at a lower level than it formerly occupied. This is the familiar doctrine of infant demands and infant industries. It is not susceptible of translation into demand and supply curves, because three variables are involved, but there is no difficulty about expressing it in algebraic formulæ. The reason that more prominence is not given to it in economic textbooks is that, for a large number of problems, abstraction can be made of it, and greater simplicity thereby attained, without any great loss of accuracy. But economists know that for some problems it is very important. There is reason to think that one aspect of it—reactions of supply changes upon the position of the demand schedule—has considerable significance for monetary theory. First, it is not improbable that a large increase in the supply of money might permanently lower the demand schedule by diminishing the proportion (c) of their titles to legal tender that

people choose to keep in actual cash. That this is likely to happen is suggested by Professor Cassel thus:

> "At a higher level of prices some payments which used to be made in money will have reached an amount which is preferably settled by means of cheques." [1]

It is also suggested by Professor Cannan in the following passage:

> "Nor do I think that, if the sovereign would only buy what is now half a sovereign's worth of goods, the currency would be doubled; at present my average holding of gold is about £5, and, with the rise of prices supposed, it might increase to £6 or £7, certainly not to £10, since I should prefer to go oftener to the bank for cash than I do now rather than to carry double the amount of gold about." [2]

If Professor Cannan is right, the reaction which he anticipates would, of course, cause a given increase in the supply of money to reduce its value more than it would do if there was no reaction. Secondly, in some circumstances a large increase in the supply of money, by making money relatively cheap in terms of things, may give bankers an opportunity to render the basis of credit more "solid" by building up larger proportionate reserves. There is reason to think that this effect followed in some degree upon the large gold production that took place during the fifteen years preceding the war, and, during the war itself, it is well known that in the United States, Holland, Switzerland and Spain the banks did not build up a credit structure proportionate to their holdings of gold.[3] A development of this kind is represented in the demand formula by an increase in the variable h, and implies a rise in the demand schedule for money. If it takes place, a given increase in the supply of money will cause the value of money to fall *less* than it would do if this reaction were lacking.

Recent experience has provided a very significant example of interdependence between the demand and supply schedules for legal-tender money. When the supply of an inconvertible paper currency is increased by a government in financial straits, prices rise and, generally, the rate of exchange with gold-standard countries falls. People are, therefore, set speculating as to what the future

[1] *Money and Foreign Exchange after* 1914, p. 16.
[2] *Economic Journal*, September, 1910, p. 396.
[3] Cf. Cassel, *Money and Foreign Exchange after* 1914, p. 72.

supply of titles to legal tender is going to be, and these speculations may affect the proportion of their real resources that they choose to keep in the form of titles to legal tender; that is to say, it may affect the variable *k* in the demand formula. Other things being equal, if there was no reaction on demand, an increase in the supply of legal tender ought always, since the elasticity of demand is equal to unity, to raise prices in the proportion in which the supply has increased. But, since in fact there is a reaction on demand, it will not do this.[1] In the early stages of a government's use of the printing press in lieu of taxes, people may think that the rise in prices is temporary, and so may hoard money against an expected fall. That is to say, they may keep a *larger* proportion of their resources in money form, or, in other words, lessen the velocity of circulation. In these circumstances prices will tend to rise less than in proportion to the expansion of currency. In later stages, however, they fear continued expansion and "fly from" the currency by putting their immediately available resources into jewellery, lessening their till money and bank balances, and, at a pinch, using foreign money instead of their own. In this way they reduce the proportion of their resources that they hold in the form of titles to legal tender, or, in other words, increase the velocity of circulation. In yet other words, they try to get rid of native money or titles to it the moment they receive them. In these circumstances prices will tend to rise *more* than in proportion to the expansion of the currency; and, even though expansion stops and contraction sets in, if people expect expansion to begin again, they may continue their flight from the currency, so that prices go on rising after expansion has stopped. On the other hand, a stoppage of expansion, even though there be no actual contraction, provided only that the stoppage is believed to be definite and final, may cause a large fall in prices by increasing the proportion of their real resources that people choose to hold in money form. These considerations are illustrated by the fact that, between December, 1920, and January, 1922, the volume of German marks in circulation a little more than doubled, but the value in *gold marks* of such

[1] The fact that in a recent period prices in Germany increased more than in proportion to the increase in mark issues does not, therefore, warrant Professor Cannan's inference that the elasticity of the demand for money is less than unity. (Cf. Cannan, *Economic Journal*, 1921, p. 460.)

paper marks fell to less than a fifth.[1] There can be little doubt that the enormous mark circulation at the end of 1922 had a smaller aggregate purchasing power both in gold and in goods than the much smaller mark circulation of 1919 had. This circumstance shows incidentally that there is a limit to the power of the printing press as an instrument of taxation, because, though, so long as notes have any value at all, a government can always raise *some* real revenue by issuing new notes, it may soon become impossible for it to raise a substantial real revenue without issuing so large a mass of them as practically to annihilate their value.[2]

One further broad consideration remains. In the real world we cannot always hope to meet only with causes that act either on demand alone or on supply alone. The same cause may easily act upon both. Certain sorts of inventions, for example, may at once facilitate production generally, thus raising the demand schedule for money, and also facilitate the extraction of gold from the mines, thus lowering the supply schedule. Naturally the result is different from what it would have been if demand alone or supply alone had been affected. From a short-period point of view, a 10 per cent. increase in the *production* of gold accompanied by an equal increase in the *production* of commodities generally, means a percentage increase in the *supply* of gold much less than the corresponding increase in the quantity of commodities. Consequently, the effect exercised through demand will be predominant. But, from the standpoint of an indefinitely long period, the stock of gold existing at the beginning must be insignificant compared with the quantity produced during this period. The effects upon production and upon supply are, therefore, substantially equal, and the predominance of the demand

[1] Cf. Keynes, *Manchester Guardian Reconstruction Supplement*, July 27, 1922, p. 269.

[2] At first sight it is difficult to understand how a fall in the value of the mark brought about by a flight from the mark (a decrease in the variable k) can have been taking place at the very time when Germany was experiencing so great a shortage of currency that bankers were unable to pay their customers' cheques in full. The explanation probably is that it is easier to cut down the proportion of one's resources that one keeps in balances than the proportion that one keeps in actual currency for wage payments and retail purchases. Thus, people may decide to keep only half their former amount of real resources in balances, but the same amount as before in mark currency. This means that they circulate their balances twice as fast. Prices double and they require twice as many mark notes as before. Until these are printed—the printing will only sustain the rise that has already taken place, it will not cause a new rise—there will be a currency shortage.

side disappears.[1] The way in which these complex effects work themselves out is not, however, my present concern. What I am interested to point out is that in the real world we are liable to have to do, not with one-handed, but with two-handed causes.

V

The Regulation of Demand and Supply

Up to this point we have examined the effect of causes operating on the value of legal-tender money through demand and supply without reference to policy. We have now to notice that it is possible for central banks and governments to manipulate these causes with a view to determining the value of money, or, in other words, the course of general prices, in a particular way. The central banks can manipulate them through their control of the discount rate, which indirectly modifies the proportion of bank balances built up on a given basis of legal tender. Governments can manipulate them by controlling the supply of legal-tender money itself. In actual practice they have sometimes used this power for the purpose of maintaining a constant rate of exchange between their money and that of foreign countries with which they have important trade relations. This is the familiar gold-exchange standard. Under it the supply of money in the country under review is a function of the commodity (wheat) price of foreign money, falling as this rises, and rising as it falls. The value of the native money fluctuates in just the same way as it would do if it consisted of freely minted coins of the substance used in foreign money, but its average value is somewhat lower since less of this substance is required in the currencies of the world as a whole. Professor Irving Fisher, on the model of a suggestion of Ricardo's, has proposed that governments should manipulate the supply of legal-tender money for a different purpose, namely with a view to keeping its value constant, in terms, not of foreign currency, but of commodities in general use at home. These matters are of very great practical importance, but the study of them lies outside the scope of this article.

[1] Cf. Edgeworth, *Economic Journal*, vol. v, p. 436.

VI

Conclusion

This completes the summary analysis which I proposed to myself in writing this essay. Anyone who has followed it up to this point must, I think, agree, whether or not he is in accordance with the argument set out, that the elements upon which the value of money, and changes in that value, depend are so numerous and complex that *some* technical device for holding them together in order is absolutely essential. To tackle these problems without tools is like going into a modern battle unhelmeted and unarmed. The device which has been elaborated here is one of many that might be employed. Whether it is better or worse than others can only be proved by trial.